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Detailing the Tamiya
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techniques for structures



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03>



Early Target
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Building the DES
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No. **37**

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ON THE COVER:

Hey look! We're all color! The fantastic work of John Rosengrant and Jim Sullivan graces our inaugural all color cover. That's right, a diorama so spectacular that it took TWO guys to build it! Jim did all the building and detailing on the Tiger I and John took over from there and did the painting and sculpting of the figures, along with the ground work. Perhaps the most impressive part is the size, it's all in 1/16th scale. Decide for yourself—their massive 11-page report begins on page 47.





Cha, cha, cha, cha, cha, cha—changes!

Welcome to issue 37. You may notice a few changes as you hold it in your hands. First off, it now has a rigid binding. This is called "perfect bound" in the trade, as opposed to "saddle stitched," (stapled) as the older method was called. The other significant difference you will notice, and perhaps if you read this section first, you may not have noticed it yet—this magazine is in full color.

Both these changes are permanent and they have been some time in the making. Long time readers may recall that I proposed this type of product several years ago when we went to 80 pages. I have actually queried the audience more than once on this point, wondering more of less out loud, if our little group would bear the burden of a higher price tag. Well, as it all turns out, the price has actually stayed the same. That's right, you now get a lot more MMIR for the same 'ol price of \$9.95. This is all thanks to the modern miracle of new world commerce, the Internet, UPS and the international conspiracy of the white ownership class. OK, maybe not so much of that last thing, but certainly plenty of the first three.

Much of this means that we are now working on an entirely different wavelength. We are way ahead our normally backward schedule. And this is a really good thing for you, the reader. This means we will be on time more frequently and, dare I write this, ALL the time.

This product, along with all of our products, is now imported via the West Coast of the U.S. and as such, is shipped west to east by a third party. So, in addition to handling all of our bulk shipments, this third party will also handle our subscription mailing. This will result in a long sought after goal of our readers: the complete removal of us from the process! More explicitly, it means that all of the distributor copies and all of the subscriber copies will be processed at exactly the same time—without Ampersand ever touching them. I am hopeful that this will finally and completely eliminate all the problems we have had in the past with the delivery of our subscriber issues.

Dude, where's my magazine?

And speaking of subscriber issues, our extra late issue 36 was made even more so by a, umm... how shall I say this? 'How about a major f**ck-up? You see, in our database, we use a letter to identify each group of subscribers. These groups are simply labeled by the issue that they start with. For instance, those starting with issue 35 are identified by the letter "G." These letters are pulled from a master list of identifiers that our database provides. With me so far? Well, generally we send out re subscription cards one issue in advance of a person's expiration date. This way, our teeny staff can handle the large number of incoming orders. Also, this method gives the subscriber ample time to return a new subscription without missing an issue. All this typically works pretty well. As a matter of fact, we have never had a problem with it—until issue 36. You see, we had a temp worker in the office to help us process subscriptions and this person made the teeniest of mistakes. Renewed subscriptions that join an existing, valid, subscription must for a time, have TWO identifiers—one for the old subscription and one for the new one. Well, this person deleted the old identifier and added only the new one. So, when it was time to use the database to assemble records for mailing, there were identifiers that were not called out, because the issues they started with hadn't been printed! This was particularly acute with those of you who expired with issue 36 and started again with issue 37. By deleting the 36 identifier and leaving only the 37 one, this group was excluded from the mailing. Well, a guy can only cry and yell so much. And the worst of it was I couldn't even fire that person, because it was a temp! Well, if you missed issue 36 and have not already contacted us, please accept our apologies and please give us a call so we can get that missing issue out to you!

Meanwhile, back at the magazine

Because this is our first all-color issue, I decided to make it sort of an "editor's issue." I took what I considered to be some of the more special material and spread it liberally around the mag. This has resulted in less than the normal number of articles, but I am hoping that the quality will more than compensate.

Perhaps the most special of the articles within is the feature describing the detailing and peopling of the big Tamiya Tiger. This article was written by John Rosengrant, who may not be the most famous guy amongst scale modelers, but is certainly famous among another crowd, that of special effects. He's Vice President of Stan Winston Studios, one of Hollywood's most prestigious effects studios. They have been responsible for such projects as Jurassic Park and the Terminator series of films. Needless-to-say, one does not get a job like this without a whole shirt full of talent. And yet, what he really likes to do is build armor. I've allotted plenty of space for his feature, so that you can bask in the glow of his work. Jim Sullivan, owner of S&T Models (no shabby modeler in his own right!) joined him on this project.

We also have a nice photo feature from noted Spanish modeler Miguel Jimenez. His stuff is kind of a kick and we hope he won't be a stranger to future issues. We have a ton of interesting stuff to showcase in the magazine in the coming year. Plastic has literally exploded and we'll be doing our best to get on top of it all (death by plastic?).

There is also a brand new feature in this issue, one that showcases the quarter's architectural and building releases. In this issue, it has taken the place of the Idea Bank, but that feature will return in issue 38.

One section of the mag that feels new, but really isn't, is New Products. Having all that stuff in color really makes a big difference (if I may be so bold).

So, sit back, relax and enjoy! By all means, let me know what you think. I always welcome your comments and criticisms. Oh—one more thing and then I'll let you go. By the time you read this, the website should finally be updated and in a more or less normal condition. We intend expanding it quite a bit in the coming year. It will also be the exclusive source on new release information of all future products.

—Pat Stansell

MILITARY Miniatures

Color Boy

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Jump down, turn around

PICK A BALE OF COTTON

Flash

THUNDER

In case of Tornado

SOUTHWEST CORNER OF BASEMENT

Forrest Gump called, he want his shoes back

TONY BONTATIBUS

Military Miniatures in Review, Number 37, December 2004.

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Created in the U.S.A.



The Mail Sack



Bumper Boy

I just wanted to take a moment and say thanks. Your magazine has gotten me to return to a hobby that I put aside many years ago. The reviews on the new products and your articles are fantastic. It has shown me all the great strides that 1/35th Armor miniatures has taken. The photo-etch and aftermarket kits have taken it to a new level. So in honor of our troops in Iraq, I went out and got a M1A1 Abrams (the new Tamiya kit) and the TOW HUMVEE. I may lose my mind with the photo-etch, but it is worth it.

Please keep up the great work. I would love to see an article on the markings and bumper codes for forces used in Operation Iraqi Freedom. Maybe you could even create a section dedicated to a specific unit (from the various countries) from WWII through the present that deals with their markings and codes.

—Joseph Bevans
jbevans@samys.com

Hey, we like that idea. Now, if we could only get someone to write it! We'll snoop around a bit and get on it. We have a cool article on a Marine M1 in issue 38 and also a massive look at the modern HUMVEE via the Tamiya kit. Currently, four kits and growing, this will feature much of the available aftermarket stuff, as well. Look for this by issue 39.

✉

Nip and tuck

Over the past few years, several modelers have requested detailed how-to articles about using photo-etch. With the countless articles that have now been devoted to this topic and the number of cutting, bending, shaping and folding tools available, one cannot go wrong with photo-etch details. Having said that, working the photo etch is only half the job. It has been a very long time since I have seen any really good articles about plastic kit modifications. Many of the photo-etch details available require some pretty major kit surgery, usually requiring the removal of the original molded detail, particularly with AFV engine decks and making molded hatches functional. I would like to see a how-to series devoted to this. Particularly, the removal/opening of molded hatches and access panels, engine louvers and grills and removal of the molded fenders from those Tamiya German Mk. IVs without trashing the whole hull.

—Miles Hubenig
mandlh@telus.net

Hmmm... Another solid idea. There are quite a few interesting tools designed for this purpose and that would add to the article, as well. Thanks a lot. Check please!

The whee factor

When I was a pre-teen, my late father got me started on serious modeling by buying me a copy of the old *Scale Modeler* magazine. The articles and tips weren't too bad, but most of them ran along the lines of, "take one kit and parts from others, toss it all in the air and whee! There's your model." In high school I chanced on some back issues of *Airfix* and *Military Modelling* and was hooked. Here, a modeler was given instructions how to build an accurate model as economically as possible by scratch-building or modifying the kit parts. Given the choice, I dropped Challenge Publications and happily sent my subscription dollars overseas.

Today, I eagerly read each issue of your magazine because of all the tips and tricks, but doing so has led me to wonder, is modeling becoming a lost art? Yes, the photo-etched and aftermarket part sets are nice, but does one really have to lay out a wheelbarrow full of cash just to beat the tar out of others at a contest? Modeling is supposed to be a hobby, one where a modeler can happily shut the world out for an hour or so and get totally lost in a miniature world. It's not supposed to be an egotistical trip where one thinks he's "made it" just because he's been awarded a brief accolade from his peers.

As for me, I choose to modify and scratchbuild my parts. And yes, they look just as good as, if not better than, the models loaded down with aftermarket parts. Besides, after scratchbuilding an elaborate part, at least I can say, "I built this."

—Walter Jacques
w_jacque@msn.com

Well, sir, you make a good point. It's very easy to lose sight of the "whee factor" in this hobby. Trust us, it can be even worse on the business side of things. We believe that there may be a large silent majority out there that shies away from any kind of organized hobbying. One of our long term goals is to help bring these guys in out of the cold, if we can (they need to read, right?) and help re-infuse some of the more stodgy types with the "whee factor."

✉

Do you have a deposit slip?

I wanted to submit an item for the "Idea Bank" that someone, besides me, may find of interest. You may or may not be familiar with the most common post war cargo truck in the U.S. arsenal besides the M35 2.5-ton truck. That would be the M37 3/4-ton truck. The M37 basically replaced the 3/4-ton Dodge trucks, such as the WC54s etc., after WW2. The M37 and its variants included a command truck, M42, the ambulance, M43 and a telephone truck, the V41. The U.S. Army and Marine Corps used them from 1952 right up into the late 1970s—even later by many U.S. National Guard units, until the 1980s. Even when CUCVs and finally the HMMWVs (HUMVEE) were out in massive numbers. The M37 type trucks saw action in Korea, Vietnam and in many other conflicts of the time.

As a vehicle that is as "unsung" as this truck is in the military modeling world, it deserves a little notice. It would be cool in a plastic kit.

—Tom Markert

You know... it's a funny story... Before the demise of Skybow, what would have been their last release, was an M37. It was the basic cargo version and we even got a copy of the box art. That was back in 2000, so it must have been close to reality. Now that AFV Club has acquired their molds (that is if they even cut metal on it), maybe we'll see it in plastic after

all. To date, no one has said anything to us, but we'll keep an eye out.

✉

Tiger Geeks: FYI

Your Tiger modeling book is great, an essential reference. However, just to prove that I can be as much of a geek as anyone, I have some additions to the reference section. I know that most of these may be out of print and very hard to find, but I thought it might be fun (if that is the appropriate word) to mention them.

Tiger! The Tiger Tank: A British View, edited by David Fletcher (HMSO books). A large format, hard cover book, it is based mainly on British intelligence, reports and a detailed examination of an intact Tiger I captured in Tunisia. Many excellent photographs, including interior shots, plus sectional and technical drawings. The book covers the Tiger I only, but there is a small section on the Sturmtyger. Definitely worth having if you are a Tiger nut, but difficult to find as it has been out of print for some time.

German Fighting Vehicles, Tiger and King Tiger Tanks and their variants by Walter J. Spielberger (Haynes). This is the English version of the Spielberger series by Motorbuch Verlag and was published in England in 1991. Schiffer did some of this series, including the Panther and Panzer IV, but no further books appeared after the Panzer III—as far as I know. There is nothing much to add to your comments on this book as it is a terrific reference.

Tiger Without a Home, The United States Army Ordnance Museum's Panzerkampfwagen VI, Ausfiring H (phew!) by Richard Cox (U.S. Army Ordnance Museum Foundation, Inc.). A very nice 103 page soft cover detailing the story of the Aberdeen Museum's Tiger I "712" which, like the British vehicle, was also captured in Tunisia. A very interesting story with a number of good historical photographs. This Tiger now probably resides at the Panzer museum in Munster, at least it was there the last time I was at the museum in 1998. It looked in pretty reasonable condition but still needed considerable restoration.

For the truly obscure, there is the following: *Dokumentation Panzer-Kampfwagen VI "Tiger II" "Königstiger," Tiger B Aufbau und Funktion* (construction and operation) by Dr. H. Maus. 126 loose, photocopied pages with 76 photographs, 119 technical drawings and 14 tables, the text is German. A detailed, and I do mean detailed, technical examination of the Tiger II, it covers everything from the 88's recoil mechanism, to the transmission, suspension, electrical system, hydraulics, etc. Allowing for the fact that they are photocopies, the photographs and drawings are pretty clear. In English and on good paper this would be really cool, if you are into this sort of thing—sadly I am. I believe there was a similar treatment on the A7V. Even I can't remember where I dug this one up!

—Mike Olive

✉

If you would like in on any of the dialog in MMR, drop us a brief letter written on a fifty dollar bill, or better yet, inscribe it on the side of an solid silver copy of the HobbyFan M48 AVLB and send it to: **Mail Sack, Ampersand Publishing Co., Inc. 235 NE 6th Ave., Delray Beach FL 33483 or mmirpat@aol.com**. Letters are sometimes edited for brevity, obscenity, national security, or just to make you sound smarter.

We sincerely regret that we rarely, if ever, are able to personally enter into correspondence with our readers.

Short Takes

The Year in Preview



The Masters GMC 2 1/2 ton CDE AFKWX (see page 14)

Aber

If there ever was a company that was out to rock your armor world, it's Aber. Just look at all this cool etched stuff. 35136, Russian Medium Tank T-34/76 Model 1940/41 Vol.1 basic set, \$23.99; 35137, Russian Medium Tank T-34/76 Model 1940/41 Vol.2 Fenders, \$16.99; 35138, Ice Cleat for T-35/85 & T-34/85 Late, \$19.99; 35141, Heavy Armored Car with

7.5cm Sd.Kfz.234/4 (Italeri), \$23.99 (1&2) and 35142, Vision ports for Heavy Armored Car Sd.Kfz.234 (Italeri), \$16.99.

And just look at all this cool milled stuff! (Note the first two stock numbers denoting scale) 35L25,

German 75mm Barrel for Pak 40 Late model, \$18.99; 35L26, German 88mm KwK 36 L/56 Tiger I Early Barrel, \$18.99; 35L33, German 50mm KwK 39 L/60 Barrel for PzKpfw III, Ausf. J (Late) L, M, \$12.99;

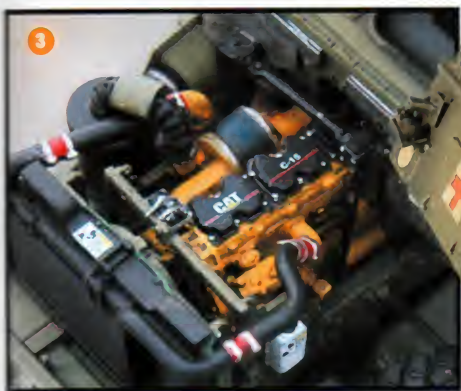
35L34, Russian 76.2mm F-34 tank barrel for T-34/76 model 1941-43, \$9.99; 35135, US 75mm M3 tank barrel for Sherman M4A3, \$9.99; 72L20, German 75mm KwK40 L/48 gun barrel for PzKpfw IV Ausf. H, \$8.99; 72L22,

Soviet tank barrel 85mm Zis-S-53 L/51 for (1943/44) T-34-85; TBA; 72L23, Russian 76.2mm L-11 tank barrel for T-34/76 model 1940, \$5.99; R14, Early model shackle for PzKpfw V Panther, TBA; 35R19, Panzer III H-N, StuG III B-G shock absorbers, \$6.99 and 35R20, Sd.Kfz. 234 width indicators, \$6.99.

The single big scale item this time is 16011, German panzer troops accessories, \$13.99.

In the new architectural line check out D16, Bench Type A, \$9.99; D19, Gate Type B, \$19.99;





D20, Wicket Type B, \$11.99 and D21, Fence Type B, \$16.99.

Academy

As timely as today's headlines is 13201, Warrior MCV "Iraq 2003," \$38.00 and 13202, M1A1 Abrams "Iraq 2003," \$38.00. Both kits are available right now at your favorite retailer. For more photos and information see www.academyhobby.com

Accurate Armour

Out now is the massive new UK HET, comprised of the Oshkosh 1070F tractor and King GTS 100/7 Trailer. (3) The M1070F is based on the U.S. Army M1070 Tractor and shares some of the chassis and drive-train items, but is completely reworked externally for UK use and fitted with a larger engine. The GTS100/7 Trailer by King is all-new. Interestingly, this massive model was designed and produced with the full co-operation of Fasttrax, Oshkosh and King. The model includes full interior detail, engine, suspension and transmission, stowage, etched brass detail set and full color decals. The completed model is 26.5" long!

K154, Oshkosh UK HET retails for \$255.00 and the tractor is available separately as K154T, Oshkosh M1070F HET Tractor for \$148.94.

AA has reworked their FV432 kit (K032) to include full interior and decals. If you're not familiar with it, the FV432 APC (4) is the most numerous British Post War AFV, designed as a "battlefield taxi" for infantry, similar to, but better protected and more mobile than the American M113. The basic APC, nicknamed "Trojan," was produced between 1963 and 1971. With the introduction of Warrior, the FV432 ceased to be used as an APC, but still serves in many units. This model depicts a Mk-2 (Diesel engine) version and features internal detail, opening hatches & doors, tools and etched brass headlamp guards. Decals are also included.

AA has also introduced two new versions of the



FV432 K132, the 81mm Mortar carrier, \$72.33 (5) and K135, FV432 Ambulance (with interior), \$68.08 (6).

This all new kit of the mortar carrier is fitted out with the full 81mm Mortar on rotating platform and with full ammunition stowage. It features internal detail, opening hatches & doors, tools and etched brass head-lamp guards. Decals specific to the mortar version are also included.

The ambulance model is fitted out as a 2+4 ambulance version (2+4= 2 stretcher and 4 sitting casualties).

Also up are two spiffy new trailers. These are K144, Trailer 3/4 ton FV2361 (empty), \$19.57 (7) and K145, Trailer 3/4-ton FV2361 (full load/covered), \$19.57 (8).

The 3/4-Ton trailer FV2361 was produced by Sankey and is generally towed behind Land Rover vehicles. Both resin models feature an etched brass detail set and decals.

K150 is an interesting one. It is the Bedford OYD Armadillo Mk-III, \$76.59 (9). This kit depicts a late version of the Bedford OYD with steel rear body. These basic vehicles were modified for the RAF to mount an "armadillo" gravel filled wooden pillbox and a RAF COW Gun (Coventry Ordnance Works). These vehicles were deployed for airfield defense and were later handed over to equip the Home Guard, where they served until the end of WW2. The model features a complete chassis, engine and transmission, along with extensive etched brass detail sets. A decal set is also included.

And, as always, up to the minute info is available at www.accurate-armour.com. Also see their ad on page 23 for a full list of U.S. dealers.

AFV Club

Here is the official AFV Club list for the next few months. The release dates (when listed) are approximate and are probably a bit early for the U.S. AF35077, Sd.Kfz.251/7 Ausf. C (2005);



AF35078, Sd.Kfz.251/1 Ausf. C Schützenpanzer (November); AF35082, Sd.Kfz.251/21 Ausf.D. (December); AF35083, Sd.Kfz.251/22 Ausf.D (November); AF35088, 88mm Flak 18 (2005); AF35091, 1e FH18/40 (2005) and AF35S26, Sd.Kfz.251/1 Ausf D all in one kit (track links, Pak40 and ammunition) (October).

In turned brass stuff, we've got AF35084, German 7.5cm/L24 Ammunition; AF35085, German 7.5cm/L46 Ammunition and AF35086, German 8.8cm/L71 Ammunition.

The big news is probably AF35079, Tiger I (Late Production) (mid December). This is a brand new kit of a late Tiger I and will feature such goodies as working torsion bars, link-to-link tracks and a metal barrel.

Some of the future listed items are familiar, but will be welcome when they arrive. AF35031, M40 SPG; AF35042, M42 Duster; AF35058, M36 Jackson; and AF35SXX, Sd.Kfz.251/1 Ausf. A.

Airedale Castings

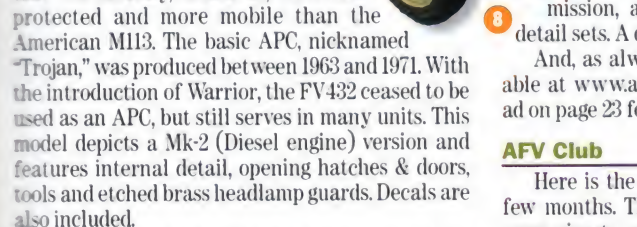
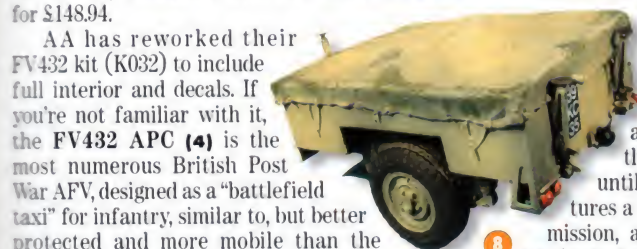
Airedale, maker of helpful and interesting accessories for the old Heller Somua S35 kit have gone and done it. They have finally thrown in the towel and created a completely new kit of the tank from the ground up. This is officially AD-5, Souma S35, \$175.00. It's an all-resin affair featuring individual resin track links and tons more. Full color instructions round out the mix.

It is our sincere belief that Mission Models is the only source for this kit in the states.

Archer

1/16th scale tanks will NOT be ignored! Archer proves, once again, that they are right on top of their game. That means pretty stickers for your new Trumpeter T34! T34/76 sheet #3 builds one T34/76, \$6.95; T34/76 sheet #4, builds three T34/76 tanks, \$10.95; 1/T34/85 sheet #1, builds two T34/85 Tanks, \$6.95; T34/85 sheet #2, builds two T34/85 Tanks, \$6.95; T34/85 sheet #3, builds two T34/85 tanks and includes bonus Polish Insignias, \$6.95; T34/85 sheet #4, builds two T34/85 Tanks, \$6.95 and T34/85 sheet #5, builds two T34/85 Tanks, \$6.95.

As always, for artwork, specifications and general good feelings; see the Archer website at www.archertransfers.com





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Azimut

We don't hear too much from these cats, but we usually manage to chase them down (they can't escape). Here's what we spied recently. First up is the **Berliet French Tank Transporter WWII**. This is quite a thing to see. This was an extremely large truck that the pre-war French army used to tote around their tanks. This thing would look pretty cool with a R-35 sitting on the back. The truck is offered as a full resin kit under the Azimut label.

In their "Best Value Model" series is the **IDF Achzarit APC (10)**. This full resin kit with interior utilizes the Trumpeter lower hull and running gear, but everything else is resin. It's a pretty cool looking model, with a ton of great looking detail. The Euro price on this item is 159.90.

Also under this label is the **U.S. T-19 105mm SP Gun (11)**. This is a conversion kit with everything you need right in the box. All of the parts from the Tamiya half-track, resin parts and the Italeri 105mm gun are at your fingertips. 55 Euros on this dude.

The logical progression to this is another complete conversion for the **U.S. 3-inch Gun (12)**. This contains the leftover carriage from the 105 and resin parts to create the anti-tank gun, for 30 Euros.

We're not sure about this last item. This is the



10

IDF M113 L-VAS (13)

a really fantastic looking vehicle festooned with futuristic looking spaced armor. We originally thought that it was a "BVM" item, but we have also seen it listed under the "FM" label. At any rate, it is based around the Italeri kit of the M113, with resin, white metal and etched parts in the box. The Euro price on this one is 45.00.

Expect to pay a bit more in the states for these



12

Crowley label, which is part of the nebulous Squadron Mail Order network. How cool is that? Here's what's up so far. **35206, German Tank Riders Set 1939-1943, \$39.95; 35207, German Tank Crew Winter Gear (3 half figures), \$12.95 and 35214, Waffen SS/Heer Panther Tankriders (6 figure set wearing winter uniforms), \$49.95.**

We suspect that more will be released on a monthly basis. For more information see the Squadron website at www.squadron.com.



Cromwell

Cromwell continues to impress with their "Combat Ready" series of cast and partially assembled vehicles in 1/76nd scale. Here is the current list as of this fall. **A21, 76mm M4A3 VVSS Up-Armored; A23, 105mm Howitzer; A24, M3 Half-Track & 105mm Howitzer (15); G61, Pz. Beobachtungswagen IV J Turret Schurzen Zimmerit Finish; G62, Pz. IV Early J Turret schürzen Zimmerit Finish; G65, SU-57 (T48) Tank Destroyer Half Track (14); CR2033, Chieftain MkV MBT and CR2034, Chieftain MK11 Stillbrew/Togs MBT.**

US. prices were unavailable at press time, but think in the twenty to thirty dollar range, as some are bigger than others and some contain more than one vehicle per pack. Mission currently is the source for Combat Ready in the U.S.

Condor Decals
Here's something you don't see every-day. Argentinean vehicle markings! Weird, huh? These new



16



18

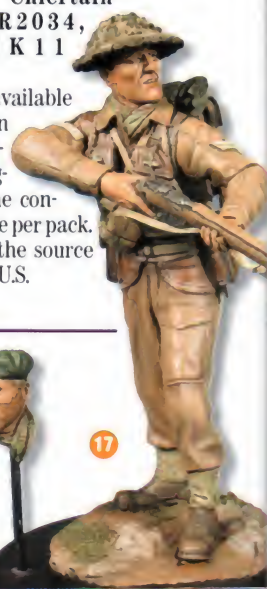
items when they pop up in limited quantities (as always). Look for them through Mission Models, Great Models, R&J and The Red Lancers.

Carter & Crowley LTD.

Remember Jäger Miniatures? These were pretty spiffy multi-figure sets from Scotland. These figure sets are now being offered under the Carter &

Condor Decals

Here's something you don't see every-day. Argentinean vehicle markings! Weird, huh? These new



17

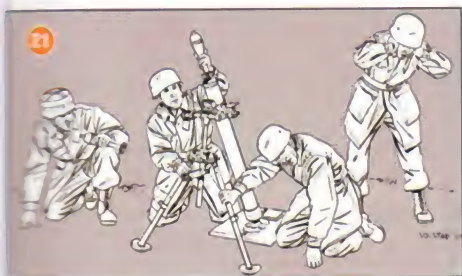
GERMAN COMMAND STAFF

1:35 '39-'45 SERIES

19



20



21



1:35 '39-'45 SERIES

Sd.Kfz. 251 Ausf. C

3 in 1



23

guys have some other interesting stuff, too. Here's the rundown. In 1/35th scale: 35001, Argentinean Tanks and 35002, Argentinean Vehicles & M41. And, in 1/72nd scale: A72003, Panzer IV "1" (Syrian, Finnish, and German) and A72004, General IDF Marking "1."

We'll bring you more information on the line as it becomes available.

DES

If you love U.S. soft skins, look no further than DES Kits. They've got the goods, baby! Continuing their series of U.S. 4-5-ton trucks is the crown jewel of that type; the Autocar U-8144T 5-ton (16). This truck was used in conjunction with the 25-ton Pontoon Trailer. The truck is number 35102 and the trailer is number 35103. Like the previous Federal and Autocar releases, the U-8144T is dripping with fine detail that includes the complete drive train and engine. The trailer is also really complete, with

all the various bits of equipment, like the oars and, of course, the pontoon, present.

To put it simply, this is one magnificent model. Although, DES offers them as separate kits, at least one U.S. vendor offers both as a package. Those who carry DES in the states include Mission Models, R&J and The Red Lancers.

Dog Tag

Dog Tag, working under the banner of Miniature Alliance is offering a single new 120mm-figure kit this season. He is MA2013, British Commando D-Day Normandy 1944 (17). It's a good-looking figure with a choice of two different heads.

Squadron is your contact in the U.S. for the line. For more information on pricing and availability see their website at www.squadron.com

Dragon

It's massive, it's exciting, it's the latest Dragon release list. Check it out. 6207, PzKpfw I Ausf. B, DAK; 6210, Sd.Kfz.181 Panzerkampfwagen VI Tiger (P) (18); 6213, German Command Staff (19); 6214, Panzer Crew, LAH Division (Russia 1943) (20); 6215, Fallschirmjäger 8cm Mortar Team (Italy 1944) (21); 6202, Sd.Kfz.251/16 Ausf. C Flammpanzerwagen; 6224, Sd.Kfz.251 Ausf. C (3 in 1 kit: 251/7, Pioneerpanzerwagen, 251/10, 3.7cm Pak or 251/1, with MG)



25



24

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Kursk Tiger P

Porsche Tiger I prototype

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s.Pz.Jg.Abt.653 Ferdinands

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2.Kompanie

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Markings based on photographs and James Blackwell's theory on the color coding of the Panther panels as posted on Missing Links Axis discussion group.

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26

(22); 6227, Sd.Kfz.251/1 Ausf. A; 6233, Sd.Kfz.251 Ausf.D (3 in 1 kit) (23); 6217, Sd.Kfz.251/21 Ausf.D "Drilling;" (24) 6248, Sd.Kfz.251/22 Ausf.D (25); Sd.Kfz.251/20 Ausf.D "Uhu" IR Support Vehicle; 6249, 7.5cm PAK 40 w/Heer Gun Crew (26); 6232, King Tiger (Battle of the Bulge) and 6252, Tiger I (Early) sPzAbt 502 Leningrad 1943. They have also announced a new "3-in-1" kit of a late Tiger I. Price and stock number TBA (27).

Wow! Lots of interesting stuff. We're happy that that Tiger P wasn't announced earlier, as we know of a certain editor who wouldn't take that all too well... It should be pretty cool, considering how nice their Elephant/Ferdinand is. The 251 stuff is a logical progression from their earlier releases. 251 fans should not be disappointed!

We're also pretty thrilled about Dragon entering the Tiger fray. The same team that brought us the Elephant and the Panther is designing 6252, so stay tuned!

Dragon is also continuing their 1/72-scale onslaught. 7230, PzBoegWg V Ausf. G (Panther); 7253, Sd.Kfz.184 Elefant; 7255, German Heavy Tank "Maus" updated; 7256, E-100 and 7257, LCM (3) Landing Craft w/29th Infantry Div (28). This last item contains a whole slew of figures to stick in and around your landing craft. Very cool.

For up-to-the-minute information on all the Dragon products, see their websites at www.dragon-modelsusa.com or www.dragon-models.com

Eduard

We think we finally may have our reporting on this line under control. We may now calmly report the much more streamlined list of the following. In the 1/72 line we have 22044, StuG IV Ausf. G (Revell), \$22.95; 22052, M-113A1 (Italeri), \$22.95 and 22056, Sd.Kfz.184 Ferdinand (Trumpeter), TBA.

Getting bigger, we have 35587, Opel Maultier (Italeri), \$24.95; 35596, Sd.Kfz. 11 Leichte 3t (AFV), \$22.95; 35617, Leaves-Fern, \$19.95; 35625, Leopold (Dragon), \$29.95; 35650, M-577 Command post (Tamiya), \$22.95; 35652, Crusader Mk.I (Italeri), \$22.95 (29); 35661, Crusader Mk.I fenders (Italeri), \$14.95; 35665, M-10 Duckbill interior (Academy), \$22.95; 35666, M-151A2 Hard Top (Academy), \$29.95; 35669, Camouflage netting Mask type III, TBA; 35673, M-10 Duckbill exterior (Academy), \$22.95; 35675, Pz.III Ausf. F (Zvezda), \$22.95; 35682, Willys Jeep MB .50 cal 1/24 (Hasegawa), TBA (30) and 35687, DUKW with 105mm Howitzer (Italeri), \$29.95.

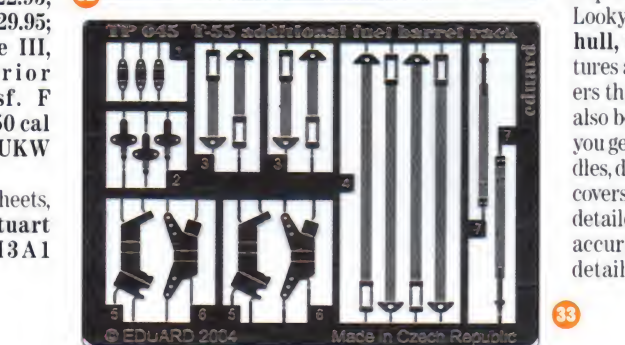
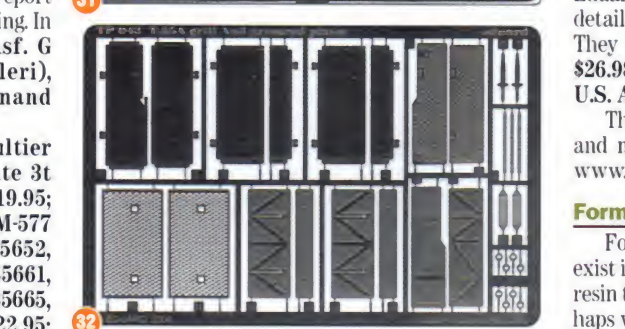
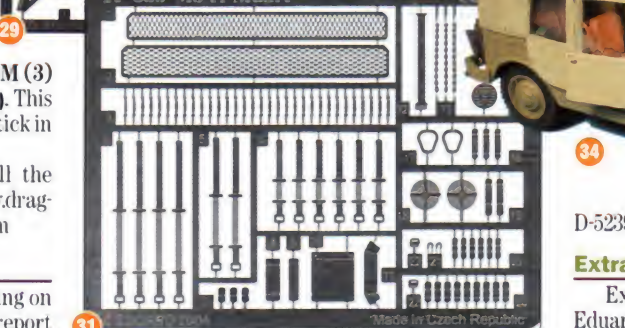
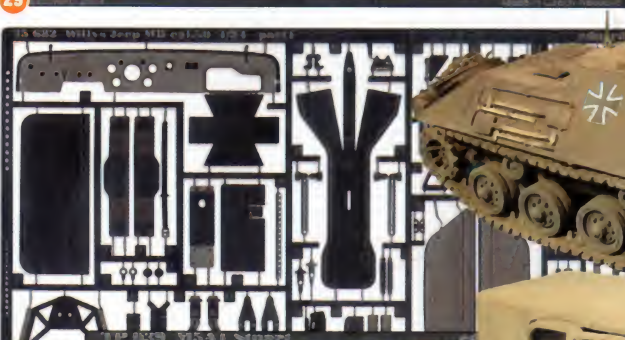
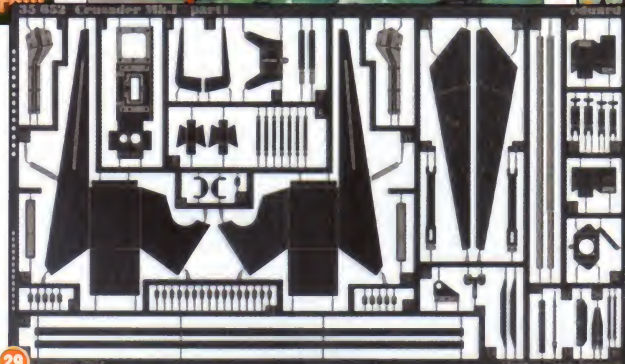
In the more abbreviated "TP" series of sheets, the following is up for grabs. TP039, M5A1 Stuart (Tamiya), \$12.95 (31); TP040, M3A1

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1:72 ARMOR SERIES



28



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Stuart (Academy), \$12.95; TP041, M-1025 Hummer I.F.F./C.I.F ID panels, \$9.95; TP042, Marder III M, \$9.95; TP043, T-55A grill and armored plates, \$9.95 (32); TP044, T-55 grill, \$7.95; TP045, T-55 additional fuel barrel rack, \$7.95 (33) and TP510, Ammunition belts US .30 cal, \$12.95.

Elite

This small German company marches on with its line of modern and WW2 German items. It's mostly the former this time

with 3553, D K W Munga, T B A

(34), 3554HS 30

SS rocket, TBA (with future versions also possible)

(35); 35250, BW Female Tank Commander, TBA and 35251, BW Female Soldier, TBA.

For more information, contact them at Elite Militärmodellbau, Eichgasse 13,

D-52393 Hürtenwald/Straß, Germany.

Extra Tech

Extra Tech, the styrene moniker used by Eduard is now offering up two new and exquisitely detailed versions of the Sherman in 1/72nd scale. They are 72035, Sherman M4 (75mm Early), \$26.98 and 72036, Sherman M4A3E2 Jumbo U.S. Assault Tank, \$26.98 (36).

These can be found anywhere that Eduard is and more information on both can be found at www.eduard.cz

Formations

Formations, the greatest resin company ever to exist in the history of time, now has even more new resin to excite you and delight your senses... Or, perhaps we should just say: here's some cool new stuff. Looky here. First up is F028, M4A1 direct vision hull, \$25.00. What you get here is a hull that features accurately detailed direct vision slots and covers that fits the DML or Italeri lower hulls and can also be modified to fit the Tamiya kit. Furthermore, you get separate engine deck with fuel shut off handles, detailed hull hatches, two types of grouser vent covers, front and rear hull lift rings, a full set of detailed periscopes and covers, front/rear fenders, accurate taillights, detailed .030 MG barrels, detailed cable clamps and cleats, subtle cast

1/72 SCALE



SHERMAN M4A3E2 JUMBO



F025, not listed in text—OOPS!

texture AND detailed armored fuel doors. Whew!
Next is **F029, Late M34A1 Mantlet with M3 75mm Gun, \$6.00**. This set features accurate casting marks on the inner and outer mantlet, straight



36



39

taper 75mm gun tube, detailed .30 cal MG barrels, and correct late style wide inner gun shield for Tamiya M4A3 and Italeri Marine Corps Sherman kits.

F030 is the Late Low Bustle 75mm Sherman Turret for \$17.00. This resin replacement part features detailed late split hatch cupola with interior crash pads, periscopes and covers, accurate M3 75mm gun with straight taper, thickened cheek armor on right front of turret, with no pistol/shell ejection port, late wide M34A1 inner gun shield, accurate casting numbers and foundry marks on inner and outer gun shields, accurate casting marks on turret roof and bustle, includes antenna mount, search light, cupola latch, lift rings, external gun sight and .30 cal MG barrels.

And if that's not enough for you, how about **F031, Direct Vision M4A1 Conversion Set, \$55.00 (38)**. This set includes all parts currently

available from Formations to detail a direct vision M4A1 at substantial savings to purchasing all that crap separately. How's that, huh? Who's your Daddy? Contained therein is Low Bustle Turret, F003; Replacement Three Piece Transmission, F032; Complete Set of Pioneer Tools, F018; Accurate Split Hatch Commander's Cupola; Hull and Turret Details, F005; Tow Cable with Stowage Clamps; MV Products Lenses and Replacement Direct Vision Upper Hull, F028.

F032, Very Early Sherman Three Piece Transmission Cover Without Bullet Splash, \$10.00 (39) is a replacement transmission/final drive cover for virtually all 1/35th



41

scale Sherman kits. It's got accurate casting numbers and foundry marks and includes axles for Tamiya, DML, or Italeri drive sprockets. It also includes front fenders for both cast and welded hull Shermans.

Here's a neat little item. **F033, Exhaust Deflector for Tamiya M4A3, \$5.00 (42)**. Designed to correct the Tamiya M4A3 kits, this little set contains hull side plate extensions and sand shield lower mounting plates with an accurately detailed deflector.



42

There's more Stuart stuff in the form of **F034, Gun Mantlet and Turret Front for Academy M3A1 Stuart, \$5.00 (41)**. More replacement parts to detail Academy's M3A1 Stuart kit #1398. This set is the proper welded style for the late M3 and M3A1 without screw heads and includes two .30 cal MG barrels, a separate gun sight sun visor, and a replacement 37mm gun tube with accurate flared muzzle.

Another extra neat idea is **F035, Sherman Foul Weather Drivers Hood, \$6.00 (40)**. This set contains a windshield and canvas cover cast separately to allow for figure installation. A clear acetate windshield part is provided with a printed defroster grid and the interior of the windshield includes a wiper motor, defroster, wiper switches and the power supply cable.

For more information on how to purchase these fine products, see the Formations website at www.formationsmodels.com

Hard Corps Models

We've got some news from these WW2 Marine Corps fanatics (and you know you're out there, too). **HX 35001, Iwo Jima M4A3 "COED" Detail Set, \$59.95 (44)**, is designed to build Italeri's M4A3 kit

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(6389) into a model of "COED", a flame tank from the USMC 4th Tank Battalion as it appeared during the battle of Iwo Jima. The set includes a new, corrected fully detailed late production high bustle 75mm-gun turret (exterior only). Other parts include wooden and concrete side sponson armor, hull top sandbags set, markings, six plated open spoke roadwheels, rear hull water tank, two new spare track racks, canvas covered front hull MG and detailed instructions that consist of a PDF file on disc. You will need to buy RHPS tracks and end connectors for use as vehicle tracks and turret and front hull



track block armor to complete the kit as illustrated. HX 35002, Iwo Jima M4A3 "CALCUTTA" Detail Set, \$69.95 (45), is pretty much the same deal as above, but it will create a model of "CALCUTTA", another tank from the USMC 4th Tank Battalion during the battle of Iwo Jima.

HX F35001, USMC Tanker #1, \$14.95 (43) is based on a photo of a USMC Tanker on Iwo Jima, sitting on the engine deck of his tank smiling for the camera. The figure comes with a choice of two heads, one with a tanker's helmet and one wrapped in a bandage. It is said to be limited to 100 castings.

It is our understanding that these fine products can only be purchased off the very cool Hard Corps website, so go to www.hardcorpsmodels.com

Hussar

Hussar, the "on the ground" production arm of Air Connection brings us a nifty armload of goodies this time. 16004, T-34/76, Ammo (resin, decals, photo-etch), \$9.99; 16005, T-34/85 Ammo (resin, decals, photo-etch), \$9.99; 35012, T-34/85 Factory 183 Early Turret with Interior

(photo-etch and Aber barrel), \$59.00; 35014, T-34 Full Spider Wheels, \$12.99; 35016, German Horse Wagon, TBA; 35023, Polish Shermans Part 1 (decals), \$8.99; 35024, Polish Shermans Part 2 (decals), \$8.99 and 35025, Polish Shermans, Part 3 Decals, \$8.99.

Hussar is officially the first to offer accessories for the new Trumpeter T-34's! And, we must say that both are quite nice and would help to further dress up the already snazzy interiors of the kits.

For more information on any of the Hussar products, see Air Connection's ad on page 24. Or see www.airconnection.on.ca

Legends

Here is the latest Legends list. 1078, IDF M113 Sandbag Armor set; 1079, IDF Machbet Conversion set (for Academy/Italeri); 1080, IDF Machbet Conversion set w/Sandbag Armor; 1081, Merkava.III Steel Wheel set; 1082, Merkava Mk.IIID Turret set (46); 1083, Merkava Mk.IIID/D Upper Hull set and 1084, Merkava Mk.IIID Cinv' set (new turret, hull, side skirts, rear hull basket and steel wheels).

Although there are several outlets for Legends in the U.S., our current info was supplied by their UK agent, Moredun Models. If you're over that way, please check them out at Moredun Models, Block F, Unit 1, Wallyford Industrial Estate, Wallyford, East Lothian, EH23 8QJ, United Kingdom. Phone: (0131)-653-2001, fax: (0131)-653-2001. E mail: moredunmodels@btconnect.com and website: www.moredun.models5u.com

Masters Productions

The guys at Masters Productions are quickly gaining a reputation for producing some of the nicest resin stuff on the planet. This round is certainly no exception. 35025, GMC Winch Set, \$12.00 (47) is a detailed winch set for the Tamiya kit, while

35027, Radiator Grills for Dodge Trucks, \$10.00 (48), presents a variety of types to dress up your next AFV Club kit. 35028, Banjo Front End Full Drive Train GMC 2 1/2 ton, \$20.00 (49), is a whole new set of legs for the Tamiya kit and 35029, GMC 2-1/2 ton COE AFKWX 15' Body, \$165.00 (50), is a magnificent rendition of the deuce and a half's longer, but stubby faced cousin.



We are knee deep in several Masters projects right now and we're lovin' every minute of it! Expect these to pop up in future issues of MMiR.

In the U.S., Masters is a Mission Models exclusive, so check it out at www.missionmodels.com

MiG Productions

We think we may be getting a slight jump on the ever-growing line of MiG Productions.

Let's take a peek, shall we? MP 35-134, T34/41-42

Upgrade Set is for the DML Dragon T34/41-42. This resin set contains replacement external fuel cells and front hatch. A new toolbox that was used in some versions is also included.

MP 35-103, Greek Temple, is an accurate scale model of a Doric Greek Temple. Mastered by Douglas Lee,

this temple can be used in any Mediterranean setting, such as Tunisia, Libya, Lebanon, Syria, Crete, and Italy or, of course, Greece. The temple is 27cm tall and contains plaster and resin parts.

MP 35-126, PzIII/IV Cupola is a highly detailed cupola for the Tamiya, DML or Gunze kits and it contains 19 resin parts.

MP 35-135, StuG III G Zimmerit is a small, simple tool that the modeler use to can easily create "waffle-pattern" zimmerit using any kind of epoxy putty and the pattern comes in four different sizes.

MP 35-105, Modern Street Lamps is a set that contains two lampposts

useful for any modern diorama. The lamps are offered in two styles, with

or without glass covers. Each lamp is 25cm high.

MP 35-132, T34/KV/JS Fuel Drums contains four fuel drums without belts to use in combination with Aber or Eduard photo-etch parts.

MP 35-133, Smoke Drums T34/JS/T55 contains two accurate smoke drums, while MP 35-136,



55



German T34 - Pz.Kpf. Wg.747 (r)-1 is a cool new conversion to change a Russian T34 into one used by the Germans.

A very timely item is MP 35-137, Sdkfz 251 Ausf. C Tarp, for the large selection of DML and AFV Club kits.

There are two new additions to the "Migments" powdered weathering colors. They are P038, African Earth Pigment and P039, Industrial City Dirt Pigment.

In new dry transfers, we have MW 3212, Soviet Divisional Symbols; MW 3229, WWII German White Crosses and MW 3213, KV Tanks marks and numbers (KV-1, -1s, -8s, -85 & SU 152).

Hey, don't forget the little stuff! In 1/72-scale, look for the following: MP 72-087, Opel Blitz Upgrade Set + Driver Figure; M W 3 2 2 8

Wehrmacht white outline numbers 1939-45 (Dry Transfers); MP 72-084, Railroad Section (two rail sections with a total of 24 cm of German Standard track); MP 72-085, Cobblestones; M P 7 2 - 0 8 6, Cobblestones with Crater and MP 72-076, WWII Soviet Tank Crew (three busts of Russian Tankers to add to a T34, KV or JS).

Milicast

We love Milicast and we are not ashamed to say it. We spied the following exquisitely molded and executed 1/76nd-scale kits at the 2004 Euro Militaire show. We're sorry we don't have U.S. prices for you right now, but as soon as we have detailed U.S. import information, we'll get it in print.



UK67, Grant ARV Mk.I (51); UK76N, SAS Jeep (NW Europe); UK77N, SAS North Africa Jeep (52); UK78N, Ambulance Jeep NW Europe w/Stretchers; UK101, Caterpillar D7 Armored Bulldozer; US80, M31 ARV (53); US102, Jeep Truck 1/4ton 4X4 Utility, Willys MB; US103, Jeep Truck 1/4ton 4X4 Utility, Willys MB w/all weather cover; US104, Jeep Truck 1/4ton 4X4 Utility, Willys MB w/improvised armor (54); US105, Jeep Truck 1/4-ton 4X4 Utility, Willys w/37mm M3A1 Anti-Tank Gun; Y01, Yugoslavian modified Stuart M3A3 with 75mm PaK40 SPG mount; Y02, Yugoslavian modified

Stuart M3A3 with 20mm Quad Flakvierling mount (55); LCM3, Landing Craft Mechanical Mk.III (LCM(3)) with Keel, rudders, etc., (50 feet long-13.7meters); ; LCM3W, Landing Craft Mechanical Mk.III (LCM(3))(50 feet long-13.7 meters) Waterline only; LCM6 Landing Craft Mechanical Mk. VI (LCM(6)) with Keel, rudders, etc., (56 feet long-17.1 meters) and LCM6W, Landing Craft Mechanical Mk. IV (LCM(6)) (56 feet long-17.1 meters), Waterline only.

If you like small scale armor, you just may not find it any better than this! More information can be found by contacting Milicast Model Company, Camden House, 9 Rannoch St., Battlefield, Glasgow, G44 4DF, Scotland or www.milicast.com

MK35 Editions

Here's a really awesome idea. Create interesting and historically accurate bases to display your 1/6th-scale figures. Cool? You bet. Here's what is being offered so far. A6-01, WWII Normandy Town Entrance Road Sign (56) is two ceramic parts and three different signs. A6-02, WWII Normandy Directional Road Sign (58) is two ceramic parts and one sign. A6-03, WWII Priority Sign Post is composed of one ceramic part and one sign. Furthermore, we have A6-04, WWII Milestone (57) and A6-05, WWII Transport Box. But wait, there's more! A6-06, WWII Normandy Road Sign is one ceramic part and one sign, while A6-07, WWII Street Section with Pavement contains one ceramic part.

MK has some pretty cool French resistance figures, too. Here's what we saw at Euro. 141, French Resistance (n.3) "Leon;" 150, French Resistance (n.4) "Marcel;" (59) 157, French Resistance with Adrian helmet (n.5) "Joseph" (60) and 158, FFI French Resistance (n.6).



We have no U.S. pricing as of yet, but interested parties should contact R&J Enterprises or The Red Lancers.

Nemrod

There were several very interesting modern U.S. figure sets on display at the Historex Agents stand at Euro. They were all under the Nemrod label and represented various present day GI groupings. Present and accounted for were a Bradley crew, an M1A2 crew, a



Blackhawk crew and various HUMVEE riders (61). Many of the sets are still TBA, but here are the currently available stock numbers and descriptions. 35201, U.S. Black Hawk Crew (4 figures); 35202, U.S. M2/3 Bradley Crew OIF (3 figures) and 35200, U.S. Black Hawk Crew (2 figures).

Check the excellent Historex website for the latest at www.historex-agents.com



latest at www.historex-agents.com



New Connection

You want wacky? We got wacky! New Connection of Germany is gradually releasing 35252, Geschutzwagen Tiger 17cm Kanone 72 (62). This will be a limited edition, full kit complete with Friulmodellismo track, a Precision Models 17cm gun, aluminum barrel and more. If this vehicle doesn't ring a bell, it's the huge self-propelled howitzer based on components of the Tiger II. The British captured a partially completed vehicle and



carbine; 35586 US Para seated with

\$14.00 and 389, "Wheels" Krupp Protze, \$25.00.

Royal products are now starting to become more widely available. Check your favorite retailer for more information.

RPM

RPM has another new styrene snack, just for you. 35053, Sd.Kfz.135/1 15cm,

\$34.96 (70), is the German 15cm sFH slapped on top of the French Lorraine tractor. This all-plastic affair is attractively packaged and includes decals.

Squadron Mail Order provided our sample and complete ordering information can be found at www.squadron.com

Schatton Modellbau

Schatton is a somewhat new company that, at least up until now, dealt in beautifully milled metal items.

We first heard about these guys from a friend in Germany. We were more than a little impressed with the fidelity of the work here and the level

of detail is just short of breathtaking. Here is the present list of items available.

3502, Early 3.7cm Flak 36/37 is a machined brass part with a fully perforated and fluted flash suppressor for \$12.00. 3503, 3.7cm Flak 43 is in the same format for \$14.00; 3505, 2cm Flak KwK 33 is, yet again, a machined brass part with a fully perforated and fluted flash suppressor for \$12.00. This part was used on our Luchs in issue 36.

New items to add to the list this time are SMB-3512, 120mm NATO Standard Ammo (Leo II, Merkava, Leclerc, M1 Abrams) for \$20.00; SMB-3516, 21cm Nbw.42 conversion for the Italeri kit at \$29.00 and SMB-3514, Porsche Tiger VK-4501 (P) at \$26.00. This item is the turret weight used to test the Tiger (P) and other heavy tank prototypes.

Our prices were provided by Mission Models.

Skybow

Skybow gained much fame with the production of a fabulous line of 1/35th scale soft skins. You remember, the M38 Jeeps and the Dodge 3/4-ton stuff. Well, that is a thing of the past now, as all of those molds have been sold to their former rival, AFV Club.

Well, in the aftermath of all that, Skybow is now turning its attention to 1/48th Scale. They have announced two kits so far, TP4801, Tiger I (Late Production) and TP4833, Tiger I

photographed it extensively after the war.

New Connection products are available exclusively in the U.S. from Mission Models and exclusively in the UK from Historex Agents.

Plus Model

Plus Models, from the Czech Republic, is always good for a few modeling yucks. Check this out. 165, Sd.Kfz.21 Mercedes G4, is a faithful rendition of the six-wheeled German staff car used by Hitler and other German bigwigs. The U.S. list is \$135.00.

Two new trailers are makin' the scene (as the kids like to say). 178, Sd. Anh 33 Ammo Trailer, \$30.00 and 179, Sd. Anh 33 Ammo Trailer for Nebelwerfer, \$35.00. These are both small, two wheeled trailers and the kits are made up of resin and photo-etched parts.



Item 180, Tabacconists (63) is a cool little structure that one might find on any European city street corner. The kit is composed of both resin, photo-etch and printed material to create a French or German version for \$27.00.

Resicast

Resicast, ever the busy one, now offers up the following. Numbers 35128, Universal Carrier update set, \$65.00, 35129, 3' Mortar Carrier, \$65.00 (64) and 35130, Universal Carrier & Vickers Gun, \$65.00 (65), continue their highly useful line of conversions for the creaky Tamiya kit. All the kits include cleanly cast resin parts (tracks, too!) and photo-etch. The same is also true for the magnificent 35172, Montgomery's Caravan, Leyland Retriever (66). This is another Resicast extravaganza loaded with superbly crafted details that is sure to be the star of your soft skin collection. How's that, huh? It's not too kiss assy, is it? Well, no matter, it's all really cracking stuff, with a U.S. price this is still TBA.

Also look for the start of a new figure series featuring U.S. paratroopers. The first items available are 35585, US Para standing with M1

Thompson (67) and 35587, US Para drinking with Garand. baby! More new stuff, all of it way cool and anxious to find a place on your next model. The list? But, of course. 359, Panzerwerfer 42 Turret, \$28.00; 360, Fenders for Pz.IV, \$26.00 (68); 361, Pz IV J Transmission Cover & Hatches, \$10.00; 365, DUKW Stowage, \$29.00; 366, Bergepanzer Ferdinand, \$84.00; 368, T34/76 Mod. 1940 Update Set, \$38.00; 370, SdKfz 251C Update Set Part 1, \$56.00; 371, SdKfz 251C Update Set Part 2, \$26.00; 372, SdKfz 251C Update Set Part 3, \$24.00; 373, SdKfz 251C/D Wheels/Tires, \$15.00; 375, Canvas Cover (Sd.Kfz.250 Alte) (69); 376, SdKfz 251C Canvas Cover (No.1), \$15.00; 377, SdKfz 251C Canvas Cover (No. 2), \$15.00; 379, Canvas Cover (n.2) (Sd.Kfz.251 Ausf.D), \$18.00; 383, SdKfz 251/7C Panzer Pioneer Conversion, \$26.00; 384, Crusader Mk.1 pt.1, \$35.00; 385, Crusader Mk.2, \$50.00; 388, Canvas Cover (n.3) (Sd.Kfz.251 Ausf.D),



(Early Production). We know that the late production kit will come with molded-in zimmerit, which is kind of cool, and that the models will eventually be available both in kit form, and built and painted. We have no word yet on a U.S. distributor, but we'll get it in print as soon as we know!

Smallshop EU

The Smallshop EU has introduced several new tools in their ever-growing line of modeling helpers. The first is called the **Brass Assist Roller Set Mk "MC"** and it sells for \$65.00. This tool consists of a series of circular slots with corresponding metal rods that will assist in the forming of precise curves and bends to be used in conjunction with the rollers to make gentle curves and other round shapes.

Next up is a **2" inch Hold & Fold** that sells for \$30.00. This is a mini metal brake used in forming accurate folds in photo-etched parts. It's among the smallest available and its diminutive size could be quite attractive to those on a limited budget or those with limited space!

Quite the opposite is the new **8" inch Hold & Fold (71)**. This tool will, no doubt, be highly attractive to those of you who build the big stuff. Whole

soon as possible and we'll publish the results as they become available.

Stormtroopers

This is a totally new name to us, but we discovered at Euro that they have some very appealing looking 120mm WW2 pieces in the line. Here's what we saw. **ST120/1, Gerfreifter "Stalingrad Winter 1942"; ST120/2, SS Hauptscharführer Ost Front 1943-45; ST120/3, British Para Corporal "Arnhem" and ST120/4, German Winter 42-44 (72-75).**

There is no U.S. distributor that we know of (although you could check with The Red Lancers). Worldwide mail order is also possible and full details can be found at www.stormtroopers.co.uk

Tamiya

Quite a grab bag this issue. A little bit of this and a little bit of that... In the Masterwork Collection of fully built and painted models we have **21014, German Tiger I Early Production (Turret No. S33), \$302.00; 21015, Leopard 2A6 Main Battle Tank, TBA and 21020, JGSDF Type 90 Main**

Battle Tank, also TBA.

An old friend has popped up as a reissue. **35018, British Scout Car Daimler** should be back in the shops by the time you read this.

Tamiya has recently been showing off a totally new item called the **Pro Craft Hobby & Craft Gloves**. These are a little weird in that they will completely protect the hand from solvents and paint, but they remain breathable and can be worn for hours in complete comfort. They are also washable and therefore reusable. We have a pair here and we're digging them (we type in them, as well). Sizes available are Small A1001; Medium A1002; Large A1003; XL A1004 and XXL A1005, all for a scant \$4.95.

Here's some news: Tamiya is starting an entirely new line of kits in 1/48th-scale. Word has it that they figure it will be their new and very specific niche in an otherwise overcrowded 1/35th-scale field. Knowing their reputation for fidelity and

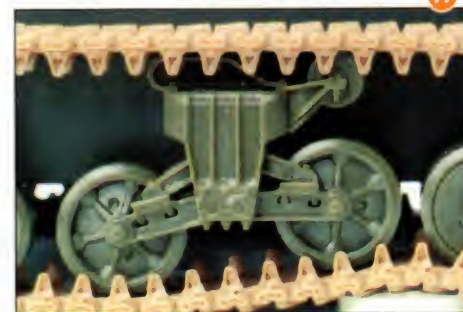
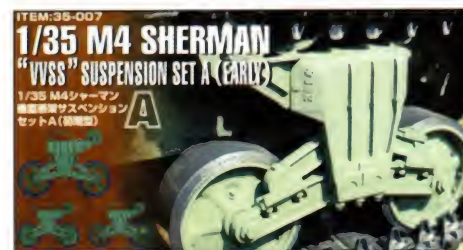
detail, the models will, no doubt, be something to looking forward to. The following are pretty much available now. **32501, Pkw.K1 Kübelwagen Typ 82; 32502, Sd.Kfz.2 Kettenkraftrad w/ Infantry Cart & Goliath Demolition Vehicle and 32503, German Kübelwagen Typ 82 Afrika-Korps.**

The current stir is about these future releases: **32504, Tiger I Early Production Model and 32506, Pkw.K2s Schwimmwagen Type 166.** There is also a fair amount of buzz over the as of yet unnumbered **M4 Sherman (76)** and **StuG III.**

For up to the minute skinny on all Tamiya products, mind melding with www.tamiya.com is recommended.

Tasca

You remember these dudes. They do the new and smashing Luch kits. New to the line and available just about now are **35007, M4 Sherman Suspension Early Type and 35008, M4 Sherman Suspension Late Type.** These are both full sets of "VVSS" type suspension and are designed to replace the bogies on just about any Sherman kit.



The sets are highly detailed and workable when complete. The parts are complete with casting number and texture in all the appropriate places. Each set includes return roller mountings, pressed road wheels with suspension, two types of idler wheels and three types of drive sprockets and final drive covers.

At first, we thought that "workable" meant the tilting pendulum type seen on some kits—which is wrong. On the real tank, each suspension arm operates independently and this is how the parts are represented in these sets!

Tasca is imported by Dragon USA and all things Tasca related can be found at www.dragonmodelsusa.com



sections of large-scale fenders will easily slip into its yawning jaws!

For more information on worldwide pricing and availability, see the Smallshop's web site at www.smallshopeu.com

Star Dust Metallic Pigments

This product is produced by a familiar name; **CMK** of the Czech Republic. The following items are actually part of the larger line of powdered pigments, but what caught our eye were the following metallic colors. **MD51, Bronze; MD52, Copper; MD53, Gold; MD54, Aluminum and MD55, Brass.**

The CMK literature states that the powders can be applied in a variety of methods, including an airbrush. We have no word on U.S. retail or availability, but we are certain they will be available wherever you find the CMK line. CMK is imported alongside Eduard, so interested shops should use that as a starting point. We'll be putting these babies to use as



Tiger Model Designs

Lots of stuff from TMD! Go baby, go! First up is **353016, M4 Sherman Hull Hatch Set, \$6.95**. This set is intended for use with the DML M4 kits and can be built with the hatches open or closed, or with the periscopes installed or removed.

Keeping with the theme is **353017, M4 Sherman Early Split-Hatch TC's Cupola, \$8.95 (78)**. This set contains everything you need to build a highly detailed and very accurate early split-hatch cupola for your DML or Tamiya Sherman model. The hatch locking mechanism is complete with catch and adjustment locking bolt.

353018 is **M4 Sherman M6 Periscopes and Mounts, \$6.95**. This set contains six sprues, with each sprue consisting of everything you need to add one M6 periscope and/or mount to any U.S. AFV. It allows for several options, including installed or removed periscopes, two options for the external vision block covers, external vision block guards and a separate, unmounted M6 periscope.



Next up, we have **353019, M4 Sherman Late Split Hatch TC's Cupola, \$8.95 (79)** and **353020, M4 Sherman Oval Turret Hatch (80)**. Both are designed to fit the Tamiya Sherman series. Contains two hatches, one large and one small, separate springs, two-piece lock mechanism, and a two-piece hatch retainer for the top of your turret.



The last Sherman item this time is **353022, M4 Sherman Early (small) Hull Hatches, \$3.95 (81)**. Designed to fit the Tamiya M4 Sherman kits with either the late or big hull hatches. Contains two hatches with added details, casting numbers and fine texturing. Also includes two sprues from the M6 periscope set.

Everybody is getting into the Stuart these days, it seems. Check out **353101, M3 Corrected Upper & Lower Hull, \$25.00 (82)** and **353102, M3A1 Corrected Upper & Lower Hull, \$25.00**. Both are hybrid replacement hulls (Academy/AFV Club) for



the M3 Stuart. Each kit consists of a corrected upper and lower hull, rear armor with separate engine access hatches, separate driver and co-driver visors and several other miscellaneous parts. Both are designed to replace the Academy hull parts, but also to be used with the AFV Club M3 running gear.



TMD maintains a pretty comprehensive web site, so see www.tigermodels.com for all the latest.

Track Base

These wild men have a very interesting idea for a product. This is a casting of actual track link to display alongside your next model. Cool, huh? Each is a major chunk of resin and each comes as a small kit, with an unfinished oak base, the link and a two-ounce bottle of paint with which to finish the link, all for \$59.95. Currently available is the **Panzer II, the 38(t), the Panzer III and the Stuart**.

Also available are **Army Flak Badge** and **Panzer Assault Badge**. These are accurate resin reproductions of the famous badges and both can be purchased painted for \$11.95, or unpainted for \$5.95.

For more information on the entire line, see the Track Base ad in this issue.

Trax

Trax, which as you know, is part of the vast, mysterious and nebulous VLS international cartel, makes no bones about the coolness of its stuff. Check this out. **0101, Dragon Wagon Soft Cab Conversion (M-26A1), \$44.95** is a big box of resin and photo-etch parts to create the unarmed version of the Dragon Wagon tractor. How come no one thought of this before? 105 is **Chinese BJ-212 Tires** for \$6.95, little bitty fun for the Trumpeter kit, while **0106 is BRDM Tire Set (83)**, ditto for \$9.95. In the "very cool" department (right next and nearly on top of the "extremely cool" department) is **0107, "Duckling" Watertight Cargo Trailer** priced at \$44.95. This is the trailer that was pulled behind the DUKW truck and it was a very common sight in the Pacific.

And speaking of the Pacific, **VLS is mastering a full kit of the LVT-1 (84)** to be released under the Trax label. This should be quite a thing to see when it's available. No word on release date or price, as of yet, but as



soon as we have more dope, we'll report it here.

And, as always, your direct portal to all this fun is www.modelmecca.com

Tristar

Tristar, ever the figure mavens, keep up the pace with a spanking new set to man their neat little 2cm flak gun. This will officially be **35013, German 20mm Flak 38 Figure Set (85)** and it will contain five complete figures. As usual, these pieces were designed and executed by Yoshitaka Hirano.

Tristar figures are available anywhere plastic is sold.



Trumpeter

These paragraphs are sure to be obsolete by the time you read them, but what the heck. The latest giant model is **208, Mörser Karl-Gerät 040/041 (initial version) on Railway Transport Carrier (86)**. Priced at \$159.95 the kit consists of a whopping 1,361 parts on 30 sprues, PLUS the lower and upper hulls, tracks and eight sections of railway. The model will also include metal axles and springs, as well as photo-etched mesh engine cover, collar and carrier handles. Additional features include a fully detailed interior, torsion bar individual suspension, folding side platform, optional long exhaust pipes and elevating main gun. What's really cool is that both the 60cm and 54cm barrels are included (with rifling and shells). The decal



39 TANK SA 38 37mm gun; 353, 39 (H) 105 m LeFH18(Sf) auf Geschutzwagen and 354, Panzerjäger 39(H) mit 75mm Pak40/3 Marder German. These are all slated to be imminent!

Yoshi


Once upon a time there was a guy named Yoshitaka Hirano. Well, there still is. He sculpts cool resin figures and makes even cooler dioramas. His figures were distributed as CD/Yoshi here in the States (and still are at www.chesapeakemodels.com). New items in the line that will not be part of the CD/Yoshi series are G09, German Officer Jochen Peiper, Kharkov; G10, German Officer, Berlin 1945 and G11, German Army Officer with Map board (87).

We have no U.S. contact for these new items, but those interested can contact www.minia



ture-park.com in Japan for more details.

Zvesda

Zvesda, from Russia, has possession of many of the older Italeri molds and now and then they pop up again under their label. The latest one to do that is 3581, M-3 Armored Scout Car, \$19.95 (88). This is the same kit as always, with the addition of a full plastic tarp for the back end. This kit was always the only game in town and is still worth checking out. Zvesda kit can be found wherever plastic kits are sold. Squadron Mail Order, who is their U.S. importer, provided our sample. 



sheet is also pretty comprehensive and will include markings for Nr. I "Adam" 040/041 and Nr. II "Eva" 040 in overall panzer gray, 1941.

Also up is 407, US Marine Corps Figures, Iraq 2003, \$9.95. This consists of four figures, along with M16A2, M203, M249 assault guns and other equipment for a total of 84 parts on six sprues.

And, there are more figures in the form of 408, WW2 USN LCM crew. This set will include three figures and is, no doubt, meant to populate the Trumpeter LCM.

In the "what's up with that?" category we have 332, Italian C-1 Ariete MBT. This is the current MBT of the modern Italian army.

These guys are always full of surprises and the following is no exception. Look for 351, Hotchkiss H-39 TANK SA 18 37mm gun; 352, Hotchkiss H-

Book Reviews

Panzerspahwagen
by Uwe Feist and Robert Johnson
Ryton Publications
Hard Cover
149 pages B&W with color
ISBN 1-930571-30-5



THIS BOOK COVERS THE development, employment and history of the very successful series of German four "rad" Sd.Kfz. 221, 222, 223 & 261 light armored

cars, with special emphasis on the most numerous variant, the 20mm armed Sd.Kfz. 222. This rugged, dependable, little armored car was used extensively by German recon units all through World War II.

The book contains 20 color illustrations and almost 200 World War II era black and white photos. Also three pages of line drawings, over 100 color pictures and production figures & dates from 1939 to 1944. The all English text and captions are well researched and informative. The black and white photos appear to have been chosen for their exceptional clarity. From these pictures the 222 can be seen in use with many different color finishes and unit markings stretching from Poland in 1939 to France in 1944. As a great added plus, extensive color photo coverage is provided of the disassembly and 100% complete frame up restoration of an Sd.Kfz. 222 that was once used by the famed "Africa Corps" in 1942-43. The odyssey story of this particular 222 from the time of its capture in Tunisia to its recent restoration is quite interesting. The interior restoration photo sequences would be especially valuable to super detail a model of the 222 A/C.

This is a high quality book, both in the material

used to produce it and contained within it. We think Panzerspahwagen would be a great addition to anyones reference collection.

Trackstory No 2 Panhard 178
by Pascal Dabjou
Editions Du Barbotin
Soft Cover 50 pages B&W
ISBN 2-9520988-1-6



THE FRENCH PANHARD 178 is one of the lesser-known armored cars of WW2 and reference information on it has, until now, been illusive. This publication goes a long way toward closing the void on this particular armored car. We like to see titles such as this get into print so that information on the more

obscure armored vehicles becomes available to the average modeler or history buff. The author does an excellent job of presenting the history of this promising design. Development of the Panhard 178 began in 1935 and it had just gone into full production prior to the beginning of WW2. During the 1940 battle for France it earned a reputation as a rugged, fast and hard hitting little armored car.

Contained in the book are 56 black and white photos, including some nice interior pictures. There are a number of line drawings of such things as the radio set, gunner's periscope and complete internal lay out. Also included are 16 nicely done color side views showing a variety of different camouflage patterns and markings. They range widely from pre-war French to those used by the German Army, to vehicles recovered from the Germans and in use by "Free French" forces. There are four pages of multi-view line drawings in both 1/35th & 1/72nd scales. Especially useful is one page showing in full color the battalion & company markings of every Panhard 178 equipped unit during the 1940 Battle of France.


Everything considered this is a handy and useful reference and should appeal to anyone interested in the opening stages of WW2 or who has an interest in armored cars.

U. S. Tank Battles in France 1944-45
by Steven Zaloga
Concord Publications Company
Soft Cover
72 pages
ISBN 962-361-081-5



ONCE AGAIN THE TEAM OF Concord publishing and Steve Zaloga have defined the term "quality for the money" by producing another outstanding example of their work. It fits in perfectly with their other companion books, *U.S. Tank Battles in Germany* and the earlier *D-Day Tank Warfare*. Each one is excellent and we would be hard pressed to decide which one is better than the others in this series.

U.S. Tank Battles in France begins with a two page introduction, which is admittedly brief, but never-the-less provides you with an over view of all the major U.S. armor actions in France from June of 1944 to March of 1945. Within the 72 pages are just over 180 black and white photos, as well as a dozen accurately done color side views of various U.S. and German armored vehicles. One of the things that always impresses in a big way is the caption accompanying each of the photographs. They are invariably quite accurate and done in a no nonsense, yet very insightful style. The combination of excellent pictures (many that will be new to you) and the accompanying thoughtful text will often make a powerful impression on the reader.

Especially interesting is a number of photos of M4A1 Sherman's modified to Duplex Drive standards and others with wading trunks installed for amphibious landings. Also, the photo coverage of the various types of hedgerow cutter fittings is quite good. The last 20 pages cover the tank battles in the Alsace-Lorraine & Vosges area between the borders of France and Germany. We liked that very much because all too often you can find little information on the fighting that took place in that region. All in all, this is another solid winner from the team of Concord and Zaloga. 

Buildings Bridges Bricks & Bits

With this issue of *MMR* we are starting a new regular feature section similar to our *Mini-Men* column and we hope that you'll find it helpful. To be able to build, detail and paint a model as accurately and authentically as possible is certainly important and should rightfully take first priority. Then, of course, the age-old question comes to mind, "OK now where and how am I going to display this little beauty?" To place a nicely finished model on a table, shelf or plain wooden plaque is all right as far as it goes... but a better and more appealing way is to display it in a realistic setting.

This can be done very effectively, ranging from simply using a base, some basic groundwork or part of a structure, to constructing a full diorama. Recently there has been a huge increase in the variety of structures, types of road surfaces, bridges, signs and ground coverings that are available to the modeler. Along with this, the quality of the items has not only improved tremendously, but also the ease with which they can be used. This section will keep you up to date on the ever-increasing range of products that are available for you to display your work in those realistic settings. We will provide you with product stock numbers, descriptions, prices and suggestions for their use. So read on and enjoy!

Great North Roads

We spied some pretty neat plaster stuff recently at the big 'ol Euro Military show. The Great North Roads line

is pretty substantial and contains all manner of bridges, building's, revetments and blockhouses. Their latest is **GNR 057, The Revetment, \$35.00 (A)**. This is a very large and surprisingly sturdy cast piece that depicts a modern style revetment. It put us mostly in the mind of a Vietnam M109 position. It features a removable top for the actual bunker section, which opens up a host of diorama ideas.

No word yet on U.S. pricing or availability, but for more information contact them at www.totalmodel.com/military/page/index-3.shtml or s.farrugia@ntlworld.com

Monroe Perdu Studios

Monroe Perdu Studios produces a unique resin line of mostly structural products created by a group of craftsmen out in California. Their beautifully detailed product line consists of several dozen items. The scale of their structures is compatible for both 1/32nd and 1/35th figures, or vehicles, so either would look right at home. If photo-etch is not your bag, then rejoice and be happy! You don't have to worry about fold-

ing and bending small metal bits. Instead, MP makes extensive use of very thin, high quality, laser cut cardboard in their building kits for detail and trim pieces. Each kit includes color photographs, detailed assembly instructions, painting suggestions and historical information. It's top quality stuff from the packaging right to the finishing touches. Let's take a closer look at two of their building kits.

MPD-024, "New Paint," \$42.00 B, consists of the following items. Two resin pieces, a base that is a section of cobblestone street, curb and tile sidewalk, 3 x 3-inch, and a two-story wall brick lower, masonry upper section with a window. The wall also has a short roof section. Overall measurement is 3 in. x 6 1/2 in. Two precision laser cut cardboard sections contain parts for the roof shingles, window shutter, two ladders,

two toolboxes and paintbrushes. One small section of hollow tubing is provided for a paint bucket. Four-color photographs are included showing structural

detail of a building similar to that of the kit. This we feel is a very nice touch as the photos will give you additional ideas for painting & weathering to really bring the structure

to life. Lastly, is a full size double sided sheet of instructions that includes a layout of the parts and helpful suggestions on assembly and painting. The building section is skillfully designed so that it could represent a structure built anywhere from 40 years ago to 200 years back. The MP folks put a lot of thought into their stuff and it shows in every facet of the kit.



MPD-026, "North African corner fountain," \$43.00 (C). The word that comes to mind to describe this one is magnificent! The title is somewhat misleading, as there is a fountain, but it sits against a wall in a town square, so it is much more than the title implies. Here, again, the skillful crafting of MP is evident because the setting could be in any time frame from the present to a couple of centuries ago. The kit consists of a brick pattern town square measuring 7 x 7 inches with an upward sloping section on one side where the fountain sits. In the center of the square is a small drain grate. Three separate building fronts are included that fill up two sides of the square. A colorful mosaic tile wall mural made of printed paper is provided for the recess area behind the fountain. It provides the focal point of the entire setting. The other two wall sections each have separate doorways, one of which is a double "French" door with fine screening included for it. The trim for the windows, doors and grates are again made of thin laser cut cardboard stock.

Included is a full instruction sheet with several assembly illustrations and useful suggestions for detailing and painting. Also four-color photographs of real North African buildings are included to give you the authentic flavor of the setting.

The web sight address for Monroe Perdu Studios is: <http://www.monroeperdu.com>

Tiger Productions Diorama Products

Tiger Productions is not a large company, just a small outfit run by guys who have been armor modelers for some time. They saw a need for items that would help make your latest vehicle or figures really come to life. The detail of the castings is crisp and clean with fine detailing that really comes to life when painted and weathered. Another added plus is their pricing, which, for the quality, is most reasonable.

This past year, the company underwent a fundamental change, switching from an all plaster line up to about 90% resin products. At about the same time, their line was dramatically enlarged, to boot. The advantages of going to resin are it is a much more durable substance, the surface detail is even better and it does not have to be sealed before painting. About the only thing that is still plaster based is their debris sets, which are really quite impressive to see, as well as extremely useful.

To give you an idea of what they offer, here is a description and sampling of some of their products.



TI-0076, North African/Tunisian house, complete/undamaged (D) is really wild. As a matter of fact, it's one of the biggest hunks of resin you will probably ever see! It's a complete four-sided two-story house with a flat roof. The roof even has a removable wooden trap door! The front

of the structure measures 8-1/2 inches wide x 6-1/2 inches high. The sidewalls are 5-1/2 inches wide. There are molded in front and back wooden doors, five-arched window openings on the front and square window openings on the back & sidewalls. All you need to do is add a bit of furniture and carpeting and you could move in! \$50.00.



TI-0077, North African/Tunisian house complete/undamaged "small" (E) is another great addition to any Afrika Korps, or desert scene. It is a one-story structure that features smaller windows than TI-0076, and is a very old style house. This building can be put together next to TI-0076 to complement each other and make a very exciting diorama. Includes a small ladder for climbing up into TI-0076. \$35.00.

TI-0081 Brick pillars & wall section is a six piece set that will dress up any city or town setting. You get two brick wall sections each 2-1/2 long x 1-1/2 high and two brick pillars 1-inch wide x 2-1/2 inches tall. Also included are two stepped caps for the pillars that can be topped with stone balls (heh, heh, he said: stone balls). It could be used nicely by itself or with a structure. \$10.00.

TI-0086, Small base is just the right size for a vignette. It measures only 3 inches square, but this little beauty is packed with detail. There are two recesses representing puddles, tire tracks, footprints, a dented 55-gallon drum and a water pail! Depending how it is painted, the base can represent muddy or snow covered ground. It's perfect for a couple of 1/35th-scale figures. \$8.00.

TI-0093, Lime wash walls with gate & tile roof measures 4-1/2 inches wide and 3-1/2 inches high and this wall piece could represent a farm or rural setting. It features a molded in large, arched, wooden, two-piece, door complete with long iron hinges and pull rings. The wall finish is rough textured to represent masonry. \$10.00.

The above listed items can be found through Tiger Productions Diorama Products, at 3651 Pleasant Ridge Road, Wingdale, NY 12594. Phone/Fax 845-832-3278, or at www.tigerdio.com

VLS Corporation/ 135th Construction Battalion

VLS's building and structures line is aptly named "135th Construction Battalion." Here's the scoop on some of their more recent offerings in the 1/35th scale mini-world.

CO0064, Stucco Chimney #2, \$9.95. This consists of two identical chimneys textured in a stucco finish with stone blocks visible here & there. The chimneys measure 3-3/4 inch high x 1-1/2 inch wide and are 1/2 inch thick. Each in turn has a separate chimney cap that can be topped with chimney pots (they are included), if desired. They have a European flavor to them and would add a lot of visual impact to the roof of any building.

CO0066, Brick chimney #3, \$9.95, also consists of twin chimneys, only these are done in distressed brick finish and are stepped or tapered

about half way up. They measure 3-1/2 inches high x 1 inch wide and are 1/2-inch thick. Included with each are four chimney pots to be attached in recesses in the molded on chimney caps. Not as massive looking as the stucco chimney set, but for a smaller building they would be just right. We think the stepped design is a nice touch for added variety.

CO0072, European dormer facings set #1, \$12.95, is a set of three window dormers for the upper stories of just about any building. They are timber framed, with window openings and molded in wood frames for the windows. The casting detail is smartly done & there is no clean up necessary.

CO0074, European dormer facings set #2, \$12.95 is another dormer three pack, only these are more for an office or official building of some type. They are cast to look like cut stone blocks with a stone windowsill. Thin window frames are delicately cast around the openings and window pane dividers are also included as an option.



CO 0075, European dormer facings set # 3, \$12.95 is similar to the other dormer sets, but these are made with a brick pattern with cut stone sill and window framing.

CO 0077, Half-round slate roof, \$19.95 is composed of a single large 8-1/2 x 11-inch sheet of scalloped edge shingles to top off any structure. If cut to size correctly, there is enough roof surface here for a complete building, or for several buildings if only a partial roof is desired.



CO0084, Clay tile roof section, \$19.95. This is a large single sheet, 8-1/2 x 11 inch in alternating rows of flat and curved, half round tile. There is more than enough here for a good-sized structure. This style of roofing has been very common in Germany for at least the last 100 years and is still popular there to this day.

CO 0085, Concrete sidewalk (F) with corner sections, \$12.95. A most useful item for any town or city street setting. It consists of two straight sidewalk sections each measuring 9-inch x 1-1/2 inches. Also included are two corner pieces with rounded outer edges. All four sections have a molded in outer curb, which we think is a thoughtful touch.

CO 0086, Doors, shutters, & windows set #1, \$13.95 is a handy little gem of a detail set that can save you a lot of time trying to scratch build items like this. What you get is two different shaped pairs of wooden window shutters, one wooden door and



three drop fit sets of window pane dividers. All are quite thin and delicately cast to show off terrific detail on both sides of each piece.

CO 0090, European Balcony #1, \$14.95 (G) is a typical fixture seen on the front of any large building from the early part of the century right on through to today. It includes the base unit and a railing in resin.



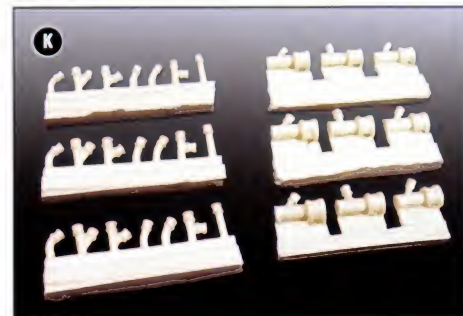
CO 0092, Round Window, \$9.95 (H), is just that. It's a set of two round frames with four lights each. This is the type of thing that one might see in a dormer or over a door.

CO 0093, Hexagonal Window, \$11.95 (I) is a bit of the same thing, with a different shape and in this case each frame has seven lights.

CO 0095, Plumbing Fixtures (Large), \$12.95 (J) is a rather clever idea with a wide variety of the different fixtures with angles from 45-180 degrees.

CO 0100, Drain Pipe Fittings (Small), \$5.95 (K) is a bit of the same treatment with smaller sized fixtures, in a variety of sizes and angles.

VLS Corporation's web site address is www.modelmecca.com



The Phantom Menace

Building and painting a Panzer IV F1 of the 11th Panzer Division, 1941

The winter arrived hastily on the Eastern Front in 1941. The Panzer IVs of the 11th Panzer Division had triumphed in the Balkans and now they advanced quickly across the Russian earth. But the snow became a worse enemy and the Germans had to improvise winter camouflage. This way, the white phantom of the 11th Panzer Division was again a threat for the disordered Red Army...

Building the Panzer IV

I am a fanatic and lover of the Panzer IV in general. I believe that each version of the tank is very interesting. Whether it is the Ausf. J, Ausf. H, Ausf. G or F, they all have something special that is attractive to me. There are also many companies that produce these versions: Dragon, Italeri, Tamiya and Academy. Regarding the F1, only Italeri and Dragon make that version in plastic. But both are incorrect kits with very poor or basic details. Tamiya is the only company

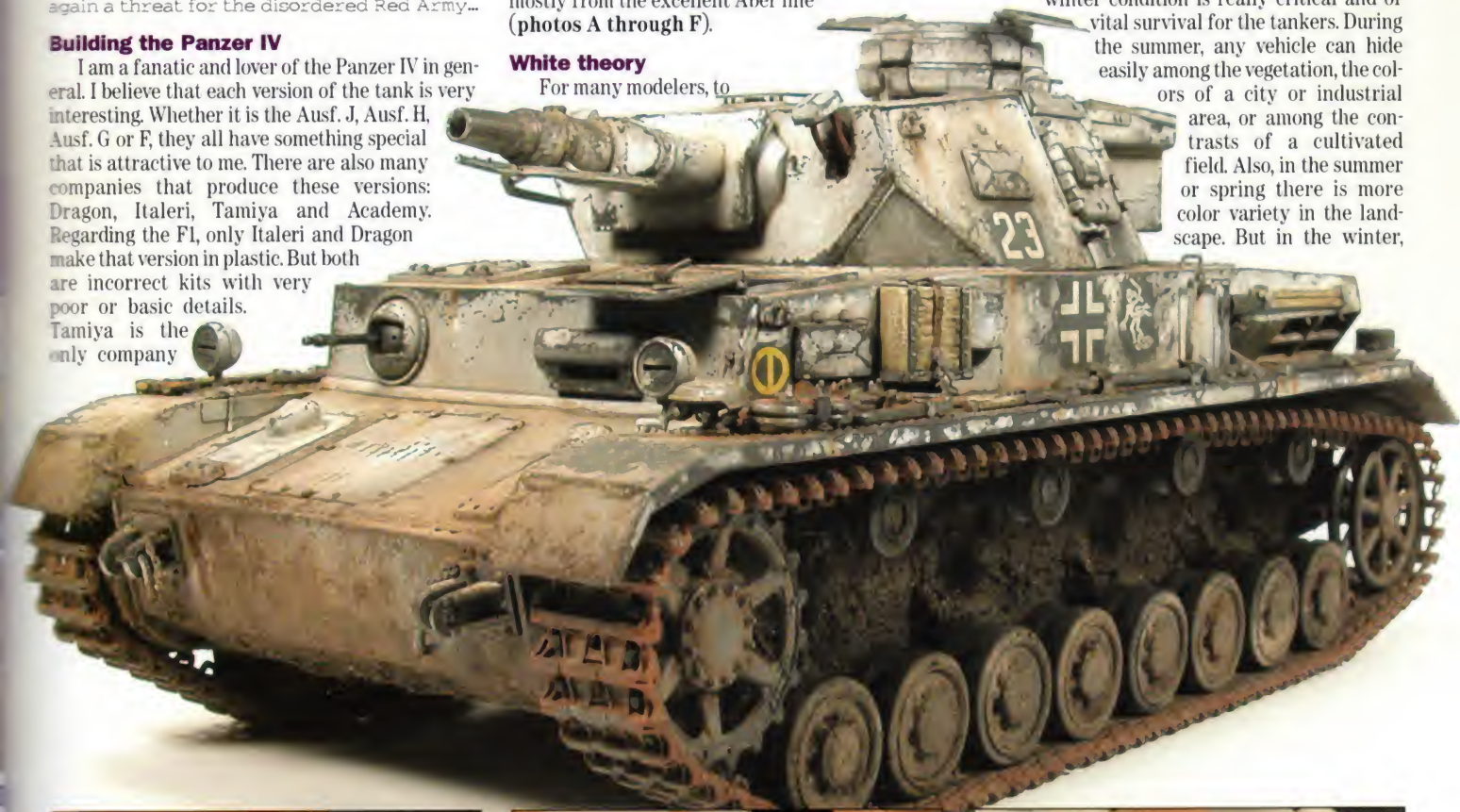
that makes a totally accurate Panzer IV, but they only offer the H and J versions. If we want to make the perfect F1, we should start by using the Tamiya Panzer IV H. The conversion kit from MiG Productions will allow one to modify the H into an F1 early with very little effort. The rest of the detail on this model was made with photo-etch, mostly from the excellent Aber line (photos A through F).

White theory

For many modelers, to

represent a tank in winter is always a challenge and a problem. This is because to paint a white camouflage is one of the most difficult aspects in modeling. The final result can be a success, an extremely attractive and interesting tank. But why are we attracted to the winter camouflage? In my opinion, the action of camouflaging a tank to adapt it to a

winter condition is really critical and of vital survival for the tankers. During the summer, any vehicle can hide easily among the vegetation, the colors of a city or industrial area, or among the contrasts of a cultivated field. Also, in the summer or spring there is more color variety in the landscape. But in the winter,



essentially white and black. Anything that is not white means that it is has volume, like a truck, tank or building. Especially in a horizontal position, it is very easy to see and to discover a vehicle without white camouflage.

From the modeling point of view, there are simple winter camouflage schemes and complicated ones. For example, a winter camouflage on a three-tone camouflage is the most difficult level. But the simplest is white camouflage on basic German gray.

Fading degrees

Depending when the original winter camouflage was applied to the original vehicle, it will have

more or less faded. Every day the vehicle is exposed to the weather it will deteriorate more and more. This can be due to its daily use or severe climate changes. A tank with the recently applied white color will appear clean, with a pure white color. There will be few chips and the general aspect will be very contrasted. But a tank with a camouflage that has been applied for more than a month will have a very deteriorated appearance. The white color will have faded in intensity, with many chips and areas where the original color is visible. Paradoxically, it is easier to make the second version than the first one. In the first option, it is necessary to exaggerate the contrast between the

recently applied white color and the dirt and the fading of the original color. But in the second option (the one that is presented in this article) it is simpler because we can apply a regular weathering to the whole surface.

Characteristic of the colors

It is important to explain that not all the colors that are applied in the winter were the same. The first colors applied in 1941 were of very poor quality, sometimes even being simple applied chalk or lime. But later, paint of better quality was used and the effects of fading were different. It is necessary to remember this when we begin our model.



Painting step by step

1. We begin applying the base with airbrush, mixing X-2 and Tamiya XF-1.
2. Next, I place the numbers and symbols, using dry transfers. I used MiG Productions' Barbarossa set, reference 3.223. I carefully cut each number and symbol with a knife and fix it to the surface with Scotch tape.
3. With a pencil, I line-up the surface and fix the number on the tank.
4. I then carefully remove the transfer film with tweezers.
5. In order to mask the markings for painting, I cover them using Blue-Tac.
6. Now I apply the white color, mixing X-2 with XF-2 to make a slightly glossy mixture.
7. The final result should be irregular, leaving visible some areas of the gray color.
8. Once the paint is completely dry, I carefully remove the pieces of Blue-Tac.
9. With a mixture of 995 and 992 of Vallejo Model Color, I begin painting the chips with a fine paintbrush.
10. The work is slow, but the idea is to make small chips in logical areas.





11



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11. Horizontal areas and fenders are the most suitable for chips. 12. With a mixture of Humbrol black and white and using an old, round paintbrush, I begin to soften the areas around the chips. The method is the same technique as dry brushing. 13. One can move the paintbrush in circles, or in vertical movements.

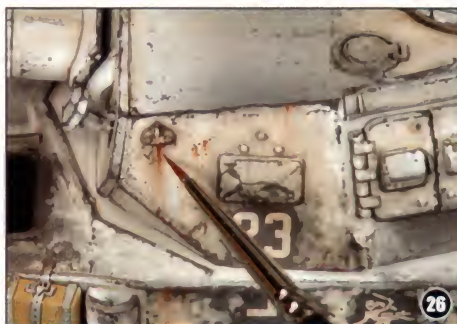


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21

14. To make this special effect on the rear engine hatches, I use Scotch tape as a mask. 15. Later, I remove the mask... 16-19. I now work the white areas with a paintbrush and Humbrol. I create irregular areas with the paintbrush, mixing it with the original white color of the surface. Although the effect is not very accurate now, the following weathering steps unified everything. 20, 21. The tank after the finished white camouflage phase and before the weathering.



22. I begin the weathering process by applying some filters of dark brown Humbrol. I mix one part color with nine parts turpentine. 23. I apply the filter in a uniform way, smoothly and without flooding the surface. 24, 25. To accentuate the dirt in some

areas, I paint with enamel and later I will spread the stain with a clean paintbrush. The paintbrush should be lightly dampened with thinner to spread the paint correctly. 26, 27. The rust color is made with a mixture of Humbrol 62 and brown oil paint.



Weathering with pigments

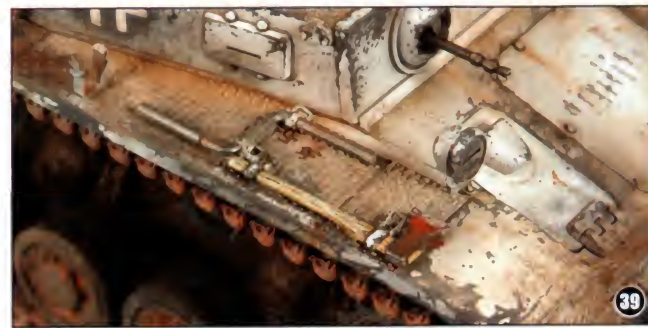
Techniques for using pigments are very diverse. Some are very complex and strange to many modelers. Also, many modelers are beginning to use the pigments chaotically, or using just any kind of pigment—this is a great error. It is not good to use just any color, especially the colors bought in art stores. These colors are of low quality and they also offer very strange, very saturated and intense colors that can destroy the look of a tank model. This is the reason I decided to produce my own product line, with colors specially designed for military modeling and dioramas. Now we

will see some of these techniques. 28. I begin creating overall surface dirt, using the colors P030, P033, P034 and P026. 29, 30. I apply it with a soft paintbrush in small quantities, especially in the horizontal areas. 31. Later I add turpentine with a paintbrush,

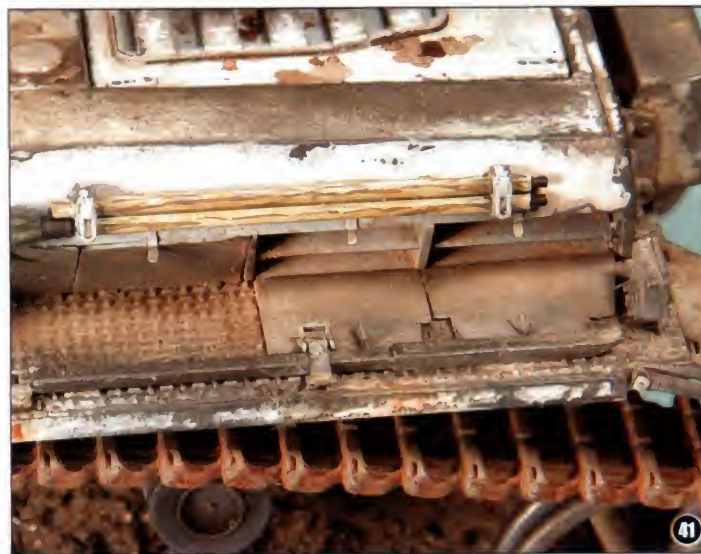
moistening the powder and letting it absorb the liquid. It's important not to manipulate the powder too much when it's wet, so that the final result is very irregular. Once dry, the pigment is fixed to the surface. 32. The final result of the first pigment phase. 33. Now, I will

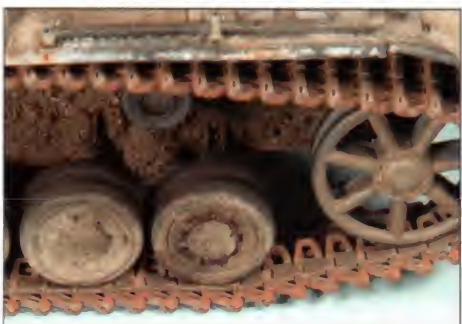


make fresh, wet mud. I use plaster and Tamiya Clear X-22. MiG Productions acrylic resin, P032, is necessary to bind the pigments with the plaster. This will also help to fix the mixture to the vehicle. Without the use of acrylic resin, there will be a danger that the mixture falls off when it is dry. 34. In a container, I place diverse quantities of pigments and plaster. Then, I add the resin very slowly. 35. Using an old paintbrush, I apply the mixture to the hull. 36. The exhaust pipe was initially painted with Humbrol 62. 37. Later, I apply different pigments (P024, P025 and



P031) to represent rust. Finally, I add some Europe Dust, P028. 38. To finish it, we will paint some chips and we will add stains of oil. 39, 40. The tools are colored with Vallejo, and pigments were used to make the dust. 41. The mud should be lightly transparent in some areas in order to see the original color of the tank.





MMiR RECCE

Model and article by Miguel Jimenez and Paco Bofarull.

MiG Productions Panzer IV F1 modification set. Suggested retail price \$55.00.

Tamiya Panzer IV Ausf. H. Kit number 35209. Suggested retail price \$41.00.

ModelKasten Workable track set. Kit number SK-23. Suggested retail price \$29.99.



Werkstat Owned and Operated

Volkswagen Production Schwimmwagen Type 166

16th Panzer Division Ulm Military District Bavaria September, 1943



Based on the concepts of designer Hannes Tripple, and his Type 2SG 6 amphibious pioneer vehicle, in 1940 Professor Ferdinand Porsche began the development of an amphibian his own. His first vehicle was basically a sealed body Kübelwagen, with a propeller shaft added to the rear and the addition of all wheel drive. This prototype was designated Type 128/1. By the time the 128/5 appeared, what we come to recognize as a Schwimmwagen was born. The production version of the 128 retained Kübelwagen style seats and all weather side curtains. By the end of 1941, 30 Type 128 vehicles had been delivered to army pioneer units. In 1941, further development of the type 128 was requested by the SS-Führungshauptamt to replace their reconnaissance motorcycles/sidecars. This refinement of the

design resulted in the type 166. A total of 14,276 type 166s were produced by war's end, the first 125 by Porsche, the remainder by Volkswagen.

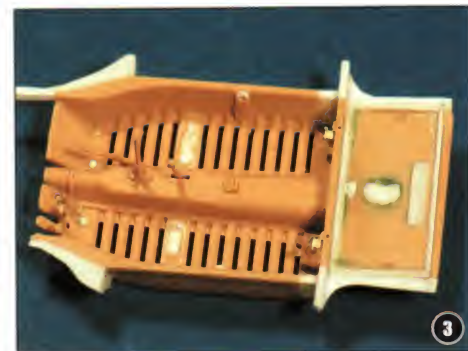
Tamiya's new tool Schwimmwagen is a gem of a kit! When I saw this thing sitting on the shelf at my local shop I said to myself this would be a great out of the box weekend project! On the way to the counter to pay up, I saw the Wings and Wheels Production's book on the Schwimmwagen just sitting there, so I took it, too. Big mistake. The book is great. It has more detail shots of this thing than you could ever dream of. And, since I am slightly susceptible to AMS (Advanced Modelers Syndrome), that was all it took. My weekend project took three months (wouldn't it be great if all weekends lasted that long)! I ended up picking up the two Schiffer books on the Kübel and Schwimmer, a great book from Rossagraph with Polish text, the MMiR guide

to the Kübelwagen and the Aber photo-etch set as well. I was ready to settle in for a long winter's nap—in July.

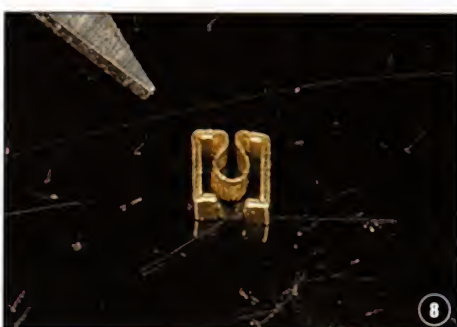
Construction

I followed the kit's instructions through the first couple of steps. I left out the majority of the engine compartment, as it's not visible with the hood closed. I did deviate slightly to add the Aber front suspension parts. I chose not to make the wheels rotate, as I felt it would be too fragile. I have a five-year-old and a one-year-old, so I am super sensitive to fragility!

While I didn't compare it to scale drawings, the kit appears to be very accurate. Unfortunately, Tamiya-san took some shortcuts on the design of the inner tub. This is the part where the AMS took hold and just wouldn't let go. I started in by filling in the large angular holes in the transmission cover (back deck area) that the back seats fit into. I used



1. The finished transmission cover and inner tub extensions left off by Tamiya-san. 2. The converted Aber clasp with rivets made by pushing a piece of .0014 spring stainless wire through a .005 sheet stock. 3. The inner tub with sheet stock extensions, modified transmission cover, and a start of the Aber madness.



4. The under dash details made from plastic strip, punched disks made with a Historex punch and die set, brass, steel and plastic rod. 5. Rear body stiffener with integrated rifle butt holder made from left over photo-etch fret and plastic stock. 6. The Aber machine gun support—its five parts photo-etch, one part bent brass rod and two parts punched plastic discs! Madness I say, madness! 7. The inner tub with modifications dry fit into the outer tub. 8. One of the "U" clips that holds the Hebestange rod. These are real fun to bend, and

you need three of them! 9. One of the "U" clips in place on the muffler guard. 10. More Aber fun. The hood latch is made up of four parts. Watch out for the Aber instructions, they show the taillight/license plate holder bent backwards! 11. The damaged left front bumper and fender. Better call Geico! 12. The conduits for the headlights were bent from brass rod. The incorrect Notek light base was fixed by sharing the light post off its base and remounting it on a formed piece of strip stock.

a combination of thick cyanoacrylate (CA) and an accelerator. This allowed me to fill, sand, refill etc., with no waiting. Once I had the back deck level, I used a large dental lab bur in my motor tool to create a concave surface, running front to back. I then added the "hump" in the middle and the small shelf towards the hinge from sheet stock, sanded and filled to shape. The raised lip of the cover was made from strip stock. The handle - which looks just like some in my kitchen - was made from round stock, filled to shape, and some strip stock. The last part I added was the hinge, a long piano type at the rear of the shelf. This was made from round stock. By the way, my "motor tool" is in reality a left over Ney dental lab hand piece. If you can find one, grab it up. It has much better torque and slow speed running than any other motor tool I have seen or tried. I have three Dremel tools scattered around the house—hobby room cast offs!

Schwimmwagen bodies are a uni-body design, with the majority built by the Ambi-Budd Company and assembled with other components at Volkswagen's mile long plant in Wolfsburg. But I digress; the operative word here is UNI-BODY. The inner and outer tubs are welded together with strengthening ribs, so the vehicle can be frameless. To recreate the integrated inner tub was no easy

task, as there are compound curves to deal with in an inaccessible area. It took a lot of trial and error to get the fit to what I would consider acceptable, but in the end I was pleased with the result.

Aber supplies the forward most vertical supports, but the rear ones, with the integral rifle butt holders are made from strip stock and left over photo etch. These were glued to the lower half of the outer tub. Make sure to remove the rifle butt holders from the bottom of the outer tub—this is incorrect.

It was at this point that I accuratized the seats and their connecting hardware. The back seats are supported on two pins, one near the headrest, the other at the lower front edge. These fit into holes in the firewall and inner tub, respectively. Aber provides the plate for the upper pins, but only 50% of the photos I looked at show this in place. The others just had a hole. Since I didn't think it would be visible, I left them off, but I put the holes in just in case! I also drilled the holes in the inner tub for the lower pins at this time. The seats are held in place by a clip on the front of the seat that engages a clasp riveted to the front of the transmission housing. To make these, I modified a set of Aber German clasps, I even added the rivets that hold the clasps in place! The rear area was finished off with the Aber engine-cooling screen (made up of four parts!), scratch

built vent covers (the little round indentations on either side of the engine vent screen) and some half "U" shaped brackets, the function of which I was unable to determine. Aber supplies two of these, but my references show four, so I made them all out of thin brass sheet stock, bent over a very small drill bit. The front seat outer supports were "closed" with punched sheet stock, and the middle support detailed with strip stock and a Grandt Line wing nut. The front seats themselves were modified so the covers would appear to slip over the stamped metal frame, surrounding it at the top. I accomplished this with 0.005-sheet stock and some squadron green putty. It was at this point that I decided to leave out the rear seats, as they would hide all the hard work I had completed to improve the transmission cover.

Under dash details, such as fuel lines, map bin, MG post, etc., were then added. Unfortunately, most of this stuff is not very visible on the finished model, but at least I know it's there! I also replaced the gearshift lever, as it was too thick and the knob had the wrong shape.

With the toughest scratch building behind me I thought "things are gonna rock now"! It seems I am a poor judge of how long things take, as I was only three weeks into the project.

I completed the inner details following the kit's instructions and Aber's hieroglyphics. This includes new peddles, headlight dimmer switch, oil tin holder, tool kit, dashboard with printed instrument panel, jack bracket, MG support, and dash support brackets. The Schwimmwagen has twin 25-liter fuel tanks. Switching between tanks is accomplished by moving an angled pipe that protrudes through the dashboard just above the steering column. I made this detail from thin walled stainless steel tube that I obtained from Small Parts Inc. (www.smallparts.com). I also drilled the hole for the wiper power supply wire at this time.

The modifications I made to the inner tub made it necessary to cement it into place before the two halves went together. After the glue had set for about ten minutes, I sealed the tiny gaps between the inner and outer tubs with Gunze Mr. Surfer

halves, but once this was completed, I finished painting the interior.

Now began the trip up the Mekong, into a heart of darkness (where is Martin Sheen when I need him?). This was the trip to photo-etched hell. To say the Aber set goes above and beyond the call of duty would be to insult their designers. This was true madness, period. Of course, I jumped in with both feet! I tried my best to use all the parts on the fret, even excluding those for the engine—I failed, but not by much! I spent a good month of evenings cutting, bending, searching the floor, checking the references and finally gluing on these itty-bitty little brass parts (and even re-gluing as the Schwimmer is so small that I was constantly knocking off parts). Along the way, I detailed the prop hinge with some punched discs, and strip stock to more closely resemble my reference. I replaced the MG mounts

width and height correct. The same can be said for the handrail, but at least that was a static part, and wasn't too bad to figure out. To get the top bows to function I had to remake the round bows several times. Now you may be asking yourself right about now, why in (fill in your own expletives here) am I making the top workable? Well, partly that trip up the Mekong, partly to see if I could do it, and partly so I could get a realistic drape and fold to the top as it was laid back, but not tied down. I spent at least four nights fiddling around with the top until I got it just right. Then I added the canvas from rolled white Milliput.

As I wanted this Schwimmer to have a used and abused look to it, I added damage to the left front fender. I accomplished this with a large round dental bur after the bumper was separated from it with a new X-acto blade. The connecting tab was



13. The stainless steel Hebestange rod is in place. What a brass ass! A large amount of the Aber fret is dedicated to the rear end details. 14. More rear end details and the fabulous tires mastered by Luke Pitt, with the kit's hubs inserted. 15. Just couldn't get enough of the back end of this beauty. Enjoy! 16. Brass details on the front end. You just have to love those Aber workable clasp. I recommend picking up Aber's German clasp set, number 35A20. That way, if you ruin any clasps in this or any other photo-etch set, you will always have a spare! 17. Front-end details include new window rests with punched plastic bumpers, Horn wire, new spare with valve stem, and shovel clasp. 18. The infamous workable top, no longer workable as the Milliput top has been added. 19. Left side overall view of the completed build. 20. The Schwimmwagen, pre shaded, on its painting stand. I generally glue a large plastic rod to a non-visible area. This allows me to easily handle the kit during painting and to clamp it into a vise to allow it to dry.

1000. To ease the painting later, I painted the inner tub at this time and the inner aspects of the lower half of the outer tub, as well. This was accomplished with Vallejo 862, German Gray. The wooden floorboards were base coated in 871, Leather Brown, then dry brushed in 874, US Tan Earth, to bring out the wood texture. Paint wear was represented by dabbing edges with 056, Black Grey. The seats were painted with a combination of 861, Gloss black and 992, Neutral Grey. The shadows were painted with a 50/50 mix of 861, Gloss Black and 950, Black. Highlights were drybrushed with 5/95 861, Gloss Black and 992, Neutral Grey. The two halves were then cemented together and left to dry. There was a nasty gap to be filled between the two

with round and tube stock. The Notek light base was carved away, and a new mount made from strip stock. The wire conduit to the Notek light and the headlights was replicated with brass wire, while the power feed to the horn, wiper motor and tow hook retaining rings was made of .008 stainless steel wire. The handrail behind the seats was bent from .50 brass stock, while the round sections of the top bows are from .030 stainless steel. I do have one major complaint about the Aber instructions, besides that they are tough to interpret. They do not supply templates for parts that they ask you to make. The top bows are a good example. They don't supply measurements for the lengths of the round bows. So, it's kind of like trial and error to get the

remade from strip stock with two holes drilled into it with a #80 drill.

The kits Hebestange rod (the part on top of the muffler used to raise and lower the prop) seemed out of scale to me, so I bent a new one from .030 stainless steel wire. It is secured to the vehicle by a wire tether, which in turn fits through a loop spot-welded to the engine hood. Aber supplies this tiny bracket, but I couldn't find one picture of their



21. I'm sure someone got in trouble for this fender bender—glad it wasn't me. Rusty areas were made by first base coating in dark gray, then adding thin layers of dark brown until the desired effect was achieved. 22. The Hebestange rod, stored in the itty-bitty U clamps on top of the muffler guard. Most of the photo-etch on the kit was bent with a 2-inch Hold and Fold, but these clamps were better suited to bending with pliers. 23. Left rear details. The kit's paddle was sanded with coarse grit sandpaper to give it a wood texture. 24. Overall view of the insides. I paid special attention to wear the paint in high traffic areas. 25. The Milliput top. 26. Front view. The leaves are from a weed I found in the woods, that I have had drying since last fall. 27. Close up of the front end. The license plate is part of the Aber set, with the kit's decals. Division markings were painted on with a stencil.

style of bracket, so I made one from brass strip stock that matched my reference.

Tires. Everyone wants to know about the tires. I originally was planning to use the New Connection set, but these turned out to be very difficult to find State side. I finally ended up begging an unfinished set mastered by Luke Pitt for the WW2 Model Maker hobby shop. These were just tires without inner or outer hubs, so I had to take the hubs from the kit's wheels.

The final details added were weld beads to the front where the top and bottom halves of the outer tub come together, a wood texture to the paddle with some coarse sandpaper and valve stems to the tires from steel wire. The build was now completed!

Paint and finishing

Paint, paint, paint. How do I paint thee? Let me count the ways. As the vehicle I was modeling is a Werkstat owned and operated, they certainly would be up to date on the latest in Wehrmacht color schemes. To make things just a little more interesting, I decided to have the vehicle production date predate the February 1943 switch from dark gray to dark yellow as a base coat. Thus the interior, wheels and top bows are all gray, while the exterior of the vehicle is a repaint of Dunkelgelb with a disruptive pattern of olive green. All paints used are from the Vallejo line. I was a died-in-the-wool Tamiya paint user (after the demise of the Polly-S line), until a friend turned me on to the Vallejo line.

I can say they are great by brush, airbrush, or even toothbrush!

Before painting started, all the clear parts were masked with Gunze Mr. Masking Sol Neo, and the inside covered with facial tissue and masking tape. The exterior was pre-shaded with 056, Black Grey and left to dry overnight. 025, Dark Yellow was then sprayed on as the base coat. This was then post shaded with 02.5 Dark Yellow mixed 50/50 with 837, Sand Light. The disruptive pattern was then sprayed on with 022, Cam. Green then post shaded with 022, Cam. Green, mixed 50/50 with the 006, Cam. Light Green. The model then was again left over night to dry. At this point, the windshield was de-masked, and a wiper pattern mask cut from masking tape and applied. To blend and fade the colors, the whole model was then over sprayed with 837, Sand Light. This also "dirtied up" the windshield. The wheels were sprayed overall 056, Black Grey, the tires masked, and the rims painted with 862, German Grey. After this was set, the hubs

were brush painted with 950, Black and the tires dry brushed in 992, Neutral Grey to bring out the detail and represent rubber oxidation. The top was painted with 988, Khaki, washed with Burnt umber oils and dry brushed with 988, Khaki mixed 50/50 with 837, Sand Light. The 16th Panzer Division markings were painted 952, Lemon Yellow with a stencil, and then outlined with a black artist pencil. The Werkstat tactical symbol came from the decal envelope in my desk drawer—how long it's been there, and what kit it came from—who knows? (I have been saving decals for more than 20 years!)

After the decal set, the whole model was sealed with Model Master flat acrylic and set aside to dry.



Since the Schwimmwagen, well, swims, or at least bathes regularly, the weathering scheme I planned to use would be light on mud and crud, and heavy on fade, abuse and neglect. Weathering started by applying wear to the Dunkelgelb in high traffic areas with 862, German Grey. Heavier wear was applied over this with a HB artist pencil, then buffed with a piece of paper rolled into a cone. Areas of damage, or old wear, were given a deep "old" rusty appearance by applying successive thin coats of a mixture of orange, brown, and black over the gray wear areas. To represent a well used muffler, I base painted it with 950, Black. Then areas of heat rust were created by over coating the black with a 50/50 mixture of 814, Burnt Cadmium Red and 815, Basic Skin Tone. When dry, this was dabbed with just the Burnt Cadmium red, and then dusted with MMP rust powder. Scratches were applied with either a dark gray Berol, or an HB pencil. What mud and dirt I did apply was done with a combination of Burnt and Raw Umber artist oil washes (in Turpenoid, as the wife hates the smell of lacquer thinner wafting through the house!), and MMP powders dissolved in Tamiya acrylic thinner. Localized Black oil washes were applied to the workings of the prop and suspension. The final step in the weathering process was the removal of the wiper mask, feathering its edges, and creating a "hand wiped" area with a little gel toothpaste on a micro brush. Go slow when you do this as you can go too far very easily! Time to take a breath—the show was a week away.

Base

I don't know about you, but I hate people handling my models. There's no better way that I can think of to break things. Even the best-intentioned judge can slip, so I decided to make a small display

base. Let's see, one week. What can I do in one week? While wandering the isles of the local Jo-Ann's Fabrics (and crafts) my wife found a small coin tray that when flipped over was just about the right size. The next evening I created the rutted road with soft green floral foam and glued this to the base with a hot glue gun. I then covered this with a wet mix of Durham's water putty. Before the putty dried. I sprinkled the base with the dry water putty powder, making sure to cover it completely. Again, this was left to set over night. Four days to show time. The excess dry water putty was knocked off, and the base painted with Burnt Umber from the Delta line of paint. This paint is great, as it is really cheap, covers well, and dries fast. The base was then dry brushed Delta's mudstone mixed 50/50 with the Burnt Umber, and then with the mudstone straight. Small pebbles were picked out with the mudstone, and Delta's charcoal color. Wood workers PVA glue was diluted 50/50 with water, and painted on to the areas that I wanted to cover with grass. I used Woodland Scenics Burnt Static grass and this looks just like my lawn in the fall. Before the glue set, I re-applied it over the grass, and added another layer.

This gives it a deep lush look. Again it was left to set over night. Three days to show time. To add a little height, and to frame the kit, I added some Woodland Scenics tall grass behind the Schwimmer. The final touch was a sprinkling of some small dried leaves from the woods, and a couple of spritzes with Dullcote to hold them down. After this had dried, I drilled holes in the bottom of the right rear, and left front tires and inserted steel pins. The last step was drilling corresponding holes in the base and gluing the kit to the base. Phew! I was finished with two days to spare!

Conclusion

Over all the kit was a fun project, even though it got slightly out of hand. There were no fit issues, and no real problems with construction, except for the large gap between the top and bottom halves of the body. The Aber set was insane, but when all was said and done, it really added a lot to the finished project. As it turned out, all the blood sweat and tears were worth it, as the kit won an Advanced Gold, and Best German subject at AMPS East 2004.

—John F. Steinman, DMD

MMiR RECCE

Tamiya new tool Schwimmwagen. Kit number 35224.

Aber photo-etched Schwimmwagen set, 35080

Aber German clasp set, 35A20

References

Modeler's Special Edition Guide to the Kübelwagen. Joe Porter. Amperstand Publishing.

Schwimmwagen in Detail. Frantisek Koran et al. Wings and Wheels Publications.

Schwimmwagen Kfz K2s. Model Detail Photomonograph No. 3. Rossagaph Publishing (Polish text).

VW at War Vol. II. Michael Sawodny. Schiffer Publishing.

VW at War Vol. VII. Dr. Bernard Wiersch. Schiffer Publishing.

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Gimme a V! Gimme a T!

Building the PanzerShop VT-72B Recovery Vehicle

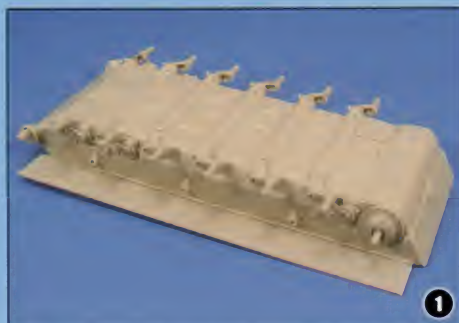
The Soviet T-72 is an old subject on which I have written several histories for MMiR, so I am not going to cover old ground here. The Vyprostovaci Tank VT-72 is a derivative of the T-72 that the Czechoslovakian government developed back in the late 1980's. The basic vehicle is a Czech version of the Soviet BREM-1, which it is very similar to. It was built in cooperation with the former East German Government plant Panzerwerkstatt 2 in Grossenhain. The VT-72 is also very similar to the Polish WZT-3, except the crane is mounted on the opposite side of the tank. The lower chassis is basically unchanged from the T-72, however the upper hull is entirely new. A hydraulically operated telescoping jib crane is mounted on the right front. Additionally, there is a main winch, plus a dozer/stabilizer blade on the front. India reportedly bought 35 of the VT-72 in late 1993 out of the total production of around 200.

One whale of a kit

This is another monster kit from Libor Matejka of PanzerShop. It is advertised as a kit for experienced modelers and that is no joke. It is also a very complete kit and if you are into engineer vehicles like I am, this one is a must. The kit consists of 375 resin parts, 290 photo-etch parts on two sheets, decals, string, clear acetate sheet with dials for the instruments, rubber hoses, wire and last but certainly not least, a set of Friulmodellismo tracks. Also included is a CD-ROM with photos of all the construction steps clearly labeled and a great set of pictures of the real vehicle, including interior photos—all in color. There is also a set of printed instructions with the all-important pages of photos of all these parts numbered, plus a number of photos of the model under construction.

Where to start?

There is so much to this kit the only way I could tackle it was just to follow the instructions on the CD. The



1. The basic chassis is one piece. The axles were glued in after some drilling to clean out holes. Careful alignment made this an easy step. 2. The fenders were glued on, but watch for alignment since they stick out in the front some. 3.

The crew compartment was constructed on a tray, which easily slipped into the chassis after painting. 4. The basic rear compartment for the winch was made from a number of pieces.

way PanzerShop sets this up is to include a series of photos divided into major groups, or lessons. These have individual photos of the steps with everything carefully labeled. There is no actual step-by-step text here, just the photos. I have found this approach to be very easy to use, but you have to study the photos carefully. This includes becoming familiar with all the steps because there are times when you need to jump ahead on some pieces. The trick is that unless you want to print out a lot of images, it is much easier to have your PC handy. I am lucky in that I have a laptop that I can set up next to my work-

bench and just follow along.

How about the interior?

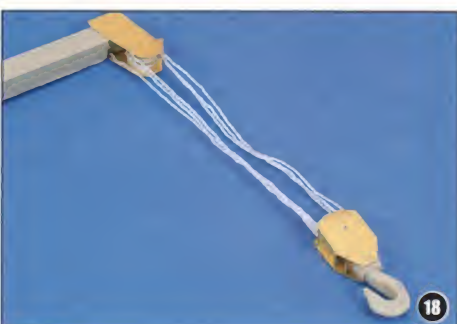
I started with the winch bend, which was pieced together. This was then set aside for much later inclusion. I also put the 12.7mm machine gun together here and it was also set aside. The next major subassembly is the interior. This interior is actually a one-piece tray that slides into the hull when it is complete. I assembled the walls and various small pieces, then added the small photo-etch parts. I left off several panels that needed to be painted separately, since they had instrument faces to put behind them. The seats were assembled and glued into the interior and this finished up the main interior tub. I have learned from





5. The winch already had the cable molded onto it, which really looks good. It is suggested to use wire from a number of parts like the front of the take-up reel but I found thin styrene rods worked just as well. 6. The radio was made up from a number of photo-etch pieces. The dials were supplied on clear acetate and added after painting. 7. The interior was first sprayed with white paint then painted with various other colors shown in the interior shots of a real VT-72B. 8. I decided to add the rear of the compartment before gluing it to the chassis. There were a number of gaps and holes that

needed filling. 9. The interior of the top was also sprayed white, then given a wash of black oil. 10. The top was glued to the chassis, then the small winch on top was assembled and glued in. 11. The roadwheels were assembled, then sanded with an emery stick to take out the mold lines. The majority of the wheels needed to be drilled out for the axles. 12. The rear deck after the first of many pieces were glued on. 13. A little busier now with a lot of photo-etch to add detail. 14. Some of the detail on the chassis rear included this boom. 15. All the Friulmodellismo links had to be drilled out before the precut pins





20



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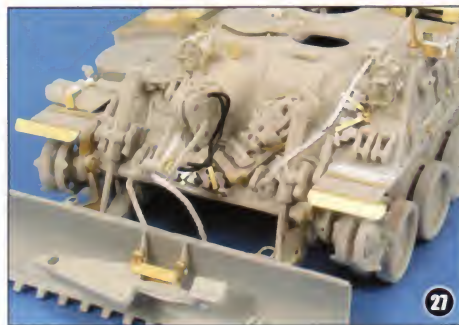
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were inserted. A drop of super glue was placed on each link to keep the wires from falling out. 16. More detail has now been added to the rear deck but it is still waiting for the large winch assembly. 17. You get a choice of having the boom retracted and stowed or open and operational. I chose the latter, but I'm not sure it was the best choice. 18. Threading the block and tackle was a very time consuming project using the kit-supplied string. 19. The base of the boom needed a cage built for a beacon light. I constructed it out of thin styrene rod. 20. The right front fender before the crane was attached. There is still a lot to go at this point. 21. The front needed some filling where the plates meet and there are several photo-etch pieces for fillers and fender

guards. 22-23. The blade assembly was rather difficult to figure out at first but I think I got it right. 24. My kit was missing the spot light mount, so I took one from my rather significant spares box for T-55's. The brass wire is part of the commander's shield. 25. The chassis is basically ready for painting. By this time it was getting rather difficult to handle because of all the delicate parts. 26. The left side showing the various bits of gear that are stored all over the chassis. 27. The forward boom had rubber hoses and cabling to add, both were provided in the kit. 28. The racks for the gas cans, along with the 55 gallon fuel tanks, was another area of very delicate parts. I managed to break off either set at one time or another during painting.

a lot of bitter lessons to pay special attention to fit when doing interiors. I therefore jumped ahead a little and added the two fender/sponsons to the hull sides. This allowed test fitting of the interior section. The fit was excellent in the rear, but I found I needed to do some trimming on the front. The forward part of the interior tray needs to be far enough back to allow the glacis plate to fit. I ended up sanding mine down, but I eventually got the top to fit without undo force. I then continued to add the details to the tray.

The directions seem to suggest gluing the rear firewall, R3, into the hull, but I think it works better being glued to the hull top, R2, first. The main reason is that the fit is not great and there is some serious filling required when R2 and R3 are mated. I added the few parts that go into the upper hull interior and again test fitted them several times. The main radio set and mounts are all photo-etch, which I assembled in separate pieces using Zap a Gap super glue to fill the seams. I then assembled it on the left fender. One thing I originally missed was a box that goes on the inside of the superstructure. It is mistakenly marked as a photo-etch part, but

should be labeled R217. This box contains a small winch, but it is not covered in the instructions until step 3. I had to go back and glue this box in and repaint the interior around it. The small winch is not terribly well illustrated in the only photo of the model that shows it. However, there is a good shot of the real one, which helped me figure out how to assemble it.

I went ahead and cleaned up the axles for the hull, but did not find any instructions on their placement. Fortunately, I have built a number of Tamiya T-72's and used their instructions. I had to drill out most of the holes for the axles, but once done they glued in okay and only needed minor alignment.

Now that the interior was complete, I washed everything in warm soapy water and sprayed the complete interior with Tamiya XF-2 flat white. I roughly followed the interior photos for colors. I painted the seats black and the one large box next to the driver, red. The dials printed on clear acetate were then glued on. The superstructure was then glued onto the hull.

Topside

The rear engine deck was then cleaned up and glued onto the rear hull. There is a pulley that goes underneath the forward box and this needs string attached to it.

I assembled the roadwheels by gluing them together. The fit on the axles is very good, so I did not have to glue them all on, but I did have to drill some of them out a little. They are all poured on a base and consequently all have a flat spot. If you align the tires so these rough spots match, you can mount the wheels with these facing down. I did sand them once they were glued using an emery board. The return rollers were cleaned up and glued in. I was not worried about painting them separately, since the skirts hide them.

I then started adding the awesome detail on the hull top by first working on the fenders—these have a ton of detail stuff on them. I basically just followed around the photos and added details. I did find that on the right rear fender there are several boxes (fuel cells?) that are connected in the photos with copper wire. The wire did not come with the kit, but I had some Hudson and Allen heavy solder

29-31. Posing the model before painting began. The one area I regret is I should have left the boom in the travel or stowed position since I could never get the hook to hang right. You really need to have a weight on it like an engine pack.



Cranes and blades

I then assembled the crane arm. You get a choice of either having the crane in the retracted or operational position. The second choice, which is what I chose, was to have it extended, so I could have the arm working. You get a short and long arm depending on which option you want. I used the long

one and glued it on the base arm. Assembling the hook and tackle assembly, was to say the least, a lot of fun. The string that comes with the kit was used, but figuring out the way the string goes took a while. Oddly, there are several details not covered in the steps but that show up in the photos of the completed model. These include wires that run alongside the cylinders and small round photo-etch parts that go on top of the crane arm.

The dozer blade was then assembled and detailed. Mine had a few teeth broken off, but I found them in the box and glued them back on. You have to be very careful attaching the mounts on the hull and blade to be sure they line up. The thing that mounts on the front of the blade is a bear to assemble and mount (I have no clue what it is). I noticed in the reference photos that it was not always present, so it could be left off, if desired. I then put the blade aside until I was ready to attach it to the hull.

The last step covers the final assembly of various components. I first tackled the front and then added all the bits and bobs. There is a strange assembly that comes out of where a gun tube would normally be. This took a while to figure out and assemble. Libor left some rather significant items out of the steps but these areas are shown again in the model photos. The most important are the headlight assemblies. You get the headlights, but none of the wire housing for them, so you are on your own. I used a combination of wire and thin round styrene rods to make them. The other two items are the

wire that worked great. The advice I have here is not to glue the boxes on until all the details are added and the holes drilled for the connecting wires. Otherwise, it would be very difficult to get these wires in.

The rear was also a challenge because of the large number of items to glue on. I just found the appropriate photos, such as the various layers, and made sure to follow them. I found that there are about three layers of detail on the rear. The last layer to add is the two 55 gallon gas cans. The only weak area of the mounts is their flush mounting. If I had any plans to move this guy once finished, I would probably have drilled out the mounts and

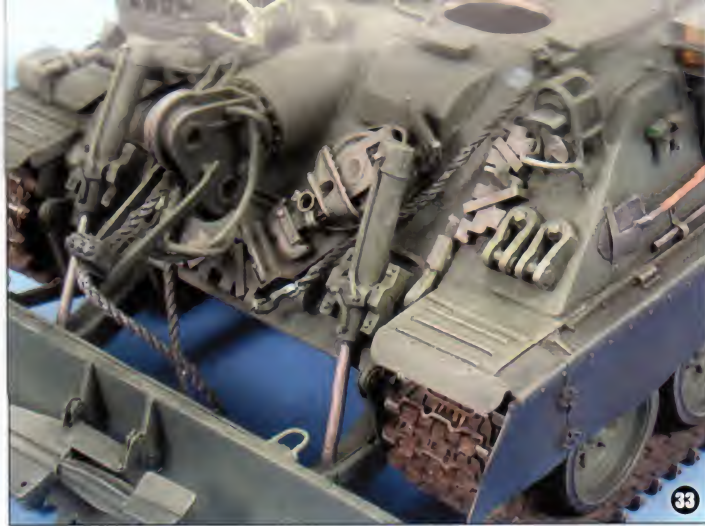
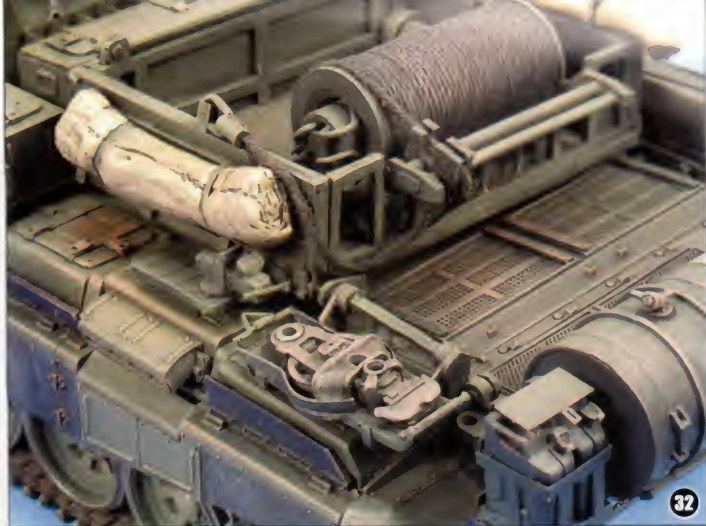
inserted wire for more strength.

The Friulmodellismo tracks that are provided in the kit are the normal wire connection type. The only problem I had with them was every link had to be redrilled (darn!). Other than that problem, the tracks went together without any problems. Once I had test fitted them on the tank to be sure I had the right length, I set them aside for separate finishing.

I continued to add details to the cage for the main wire spool, which I had started in the first step. There is a lot to it, also. Although the photos show copper wire being used around the spool head, there was none furnished in the kit, so again I used thick soldering wire.



The model was first sprayed with flat black, then lightly sprayed with a mixture of olive green and khaki. The decals were very thin and difficult to get on.



32. The details of the left rear deck area. The block and tackle on the rear and also a similar one found on the front were very difficult to assemble. 33. You get a choice of having the dozer blade either up in travel or down in operational mode, as seen here, but it would be very difficult to make it moveable. 34. The side skirts were not added until all the painting was complete and, of course, the tracks added. The canvas tarps on the rear winch were painted khaki, then weathered. 35. I used a combination of wire and thin round styrene rods to make the warning light housings. One goes here, on the left side of the vehicle and the other goes on the rear of the crane arm mount. The warning lights are cast in clear orange resin and look great.

warning light housings. One goes on the left side of the vehicle and the other on the rear of the crane arm mount. You get the main piece in photo-etch, but you have to again use either wire or styrene to complete them. The warning lights are cast in clear orange resin and look great.

The top and sides were again detailed the same way without any real difficulty. I just took my time because there were a lot of parts. The searchlight that goes over the commander's hatch was missing its back piece, but since these were just copies from the Tamiya kit, I substituted one from my spares box. I elected to have the commander's weather shield up and in place, since I think it looks cool. It was assembled and the clear acetate was sandwiched in.

Photos of the completed model show a remote box and wires running into the forward hatch. There are three wires hooked to a box, but the instructions do not mention any parts or how to assemble it, so I left them off. I thought the wires looked way too big, anyway. There is also a chain saw and again, although not covered in the instructions, it is not too difficult to figure out, so I built it.

Very carefully painting the pieces


I left the kit in a large number of pieces for painting since it would be difficult, if not impossible, to get underneath all the various boxes and parts. I again washed everything in warm soapy water, then sprayed the entire exterior of the model with Tamiya XF-1 flat black. I masked off the roadwheels and skirts and then lightly sprayed with a mixture of Tamiya olive green and khaki. The various cable lengths and tools were then painted using primarily Vallejo paints.

The tracks received my usual treatment of a 24-hour bath in vinegar, a five-minute bath in Blacken-It and then a wash of oils. Last, I scrubbed them with a kitchen scouring pad. They were then mounted and the side skirts were glued on. These skirts are very delicate and I had trouble keeping them on. I did leave the main crane off at this point,

but added all the other boxes and hatches.

The few areas to receive decals were sprayed with Tamiya clear gloss. The decals are very thin, which is good, but this caused me to have some trouble getting the bigger ones straight. These areas were then sprayed with clear flat. I then gave the whole tank a wash of black oil paint. I dry brushed a little, but because this guy was turning into a monster to handle, I did not do too much. The clear lenses and orange beacons were then glued on and finally, the crane arm.

Results

This was probably the toughest kit I have ever built and I will not even go into how long it took. The good news is that it is very buildable, but does take a mountain of patience. I know I could not have built it without having ready access to a computer to display the pictures on the CD. The complexity of this kit is truly amazing and I am more impressed with Libor's talents each time he produces a new kit. The quality of the castings and photo-etch parts will give any resin manufacturer a run for his money. 

— Jim Hensley

MMiR RECCE

PanzerShop VT-72B. Kit number PS35C111HT. Kit graciously provided by the manufacturer. Suggested retail price \$250.00.

References

Foss, Christopher. *Jane's Armour and Artillery 1996-1997*, Jane's Information Group Ltd., UK, 1997.



These photographs are being used by the kind permission of Libor Matejka of PanzerShop, who produced the kit.

A. A Czech Republic VT-72B, which this model is based on. B. A close-up of the crane base and beacon light. Notice that the forward facing marker light is green. C. The other end of the crane arm showing it in its stowed position. D. A good view of the rear without the spare gas cans and drums blocking the view. E. The left side of the vehicle. Notice the commander's shield in its stowed position. F. Looking back into the crew compartment reveals the fire extinguishers and cable details. G. These are the radios on the left side of the crew compartment. H. This is a view looking into the right rear corner of the crew compartment. I. The driver's seat and controls can be seen here.



Platz der Groß Tiger!

Creating a small slice of the battle of Kharkov in a big scale

In the initial months of 1943, some of Germany's best Panzer divisions were involved in the recapture of the Russian city, Kharkov. Leibstandarte SS Adolf Hitler led the way, featuring infamous young officers, such as Kurt Meyer, Max Wünsche and Jochen Peiper, in this decisive Eastern front campaign.

For years, photographs from this battle have always intrigued me. From the look of the Waffen SS troops, with their special winter anoraks and abundance of automatic weapons, to the variety of white washed, muddy armored vehicles.

About two years ago, RZM Imports released a book entitled *Platz Der Leibstandarte*, which I feel is probably the definitive photographic book on the Battle of Kharkov and was the final catalyst needed by me to create a

Kharkov diorama.

Coincidentally, during this same time-

frame,

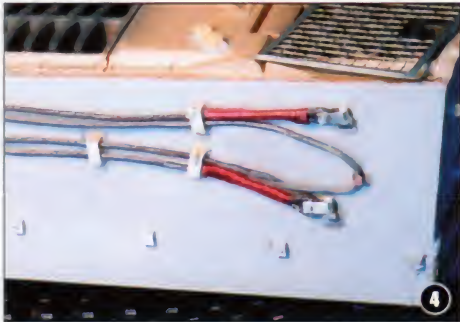
Tamiya released the "static" version of their big 1/16th scale early Tiger I model and now the wheels were really turning!

There were, according to my research, approximately 10 to 14 Tiger Is attached to the Leibstandarte at Kharkov and I selected #415, whose commander and fate at this point in time is unknown. This gave me (in my mind) full artistic license to create this diorama populated with scratch built figures based on my photographic research.

My next move was to contact my friend, Jim Sullivan

(owner of S&T Models) and pitch the idea of creating truly accurate 1/16th-scale crews to fit the Tamiya Tiger and a slew of tank riders. These would later be released as resin figure kits. Jim, a diehard armor modeler, himself, was definitely on board and we decided to split up the diorama construction as follows: Jim would build and super detail the Tiger and I would sculpt the figures, create the groundwork, and paint the tank and figures.





Planning and composition

This phase of the diorama's construction is crucial to the overall success of the piece. One should strive to convey a balanced flow between the figures in order to hold the viewer's attention by directing the eye around the diorama.

To achieve this practically, the Tiger tank was partially built (main structures, i.e. the turret, hull, gun) and basic armatures of the figures were prepped and the poses were generally set.

Since deciding to work in 1/16th scale (just because it's so big and cool!), it was very important to work out the details of the pose and placement of



1. The light wire detail was redone in copper wire. This is also a nice close-up of weld connecting front slab to side armor. 2. The texture on front armor plate was created with a Dremel tool and a stippling of Tamiya putty and glue to match photos of the real deal. 3. Good shot of side plate interlocking detail. The scratch built standoffs and wire track cable are both from Aber. 4. Photo showing Aber wire track cable and fender standoffs, which have weld around everyone—necessary in 1/16th-scale. 5. The armor ring for the final drive was completely rebuilt including new bolts and welds done in Magic Sculpt. 6. Fabricating a master, molding it in silicone then pulling out resin copies created the standoff lugs. Once again, note the weld details throughout—crucial and obvious in such a large scale. 7. The excellent Aber front fenders. All the fenders were soldered together; super glue won't hold them together in this large scale. 8. The resin cable clamp castings on the engine deck were created like the lug standoffs. The heavy texture of rolled armor plate was patterned after photos. 9, 10. The Aber side fender panels soldered together with their supports inside.

the figures because changes later on would be time consuming due to the large scale.

The Tiger I

The first thing apparent about Tamiya's Tiger I early model is its sheer size. I think this scale is exciting and I would love for Tamiya to do more big scale kits. This scale presents an opportunity to the modeler to really capture the look of the real tank in every detail.

Tamiya's kit fits together quite well and the instructions, as always, are clear. Unfortunately, (or fortunately, depending on your outlook) many of the kits' components have been simplified, or are missing altogether. This is most likely a concession to its original purpose as an R/C model, not a static one.

When comparing the Tamiya kit to photographs of the real thing, one notices that the welds are missing in places, or not as bold as they should be and the overall surface texture needs embellishment.

Jim replaced all the welds and created the miss-

ing ones with Magic Sculpt two-part epoxy putty and the rolled armor plate's texture was simulated by lightly touching a running Dremel tool to the surface. The surfaces were then stippled with an old brush, Tamiya glue and putty. This was quite a time consuming process, but it was very effective.

To aid in the super-detailing process, Aber's photo-etched 1/16th Tiger kit was used. This is quite a set, to say the least! The fenders are absolutely fantastic in their detail and scale thickness, and provide a perfect basis to battle damage—just like the real ones. The exhaust shrouds and smoke candle parts are also a delight.

Jim found, though, the best way to construct photo-etch in this scale was to solder everything, as super glue is not sufficient in strength. The downside is that some of the parts seemed too thin and were only used as templates to recreate the parts in plastic. A punch and die set was used to fabricate the nuts and bolts, instead of using the photo-etch items.

The tow cable, though fabulous in its intricate detail, was a nightmare to bend into position. Whether heating or annealing, nothing seemed to work. So, the solution was to mold it in silicone and pull out a resin casting! This was then easily manipulated with a hair dryer.

For other parts in which multiples were needed, masters were molded and resin pieces were used. This included such parts as standoff lugs, clamps, wing nuts and other assorted bits.

There were many items that needed to be scratch built. Of the major items to be fabricated, two were the engine fans and fuel tanks because you can see them through the engine louvers. The photo-etch deck screens from Aber are terrific and finish off this area nicely.

The Feifel air cleaners were overhauled with a new scratch built forked conductor, trunk brackets and flanges with their delicate welds. The air filter trunks from the Tamiya kit are nice in their stock form.

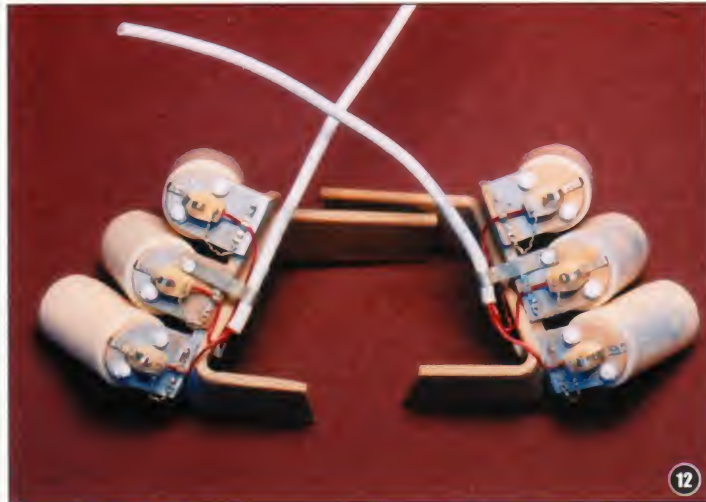
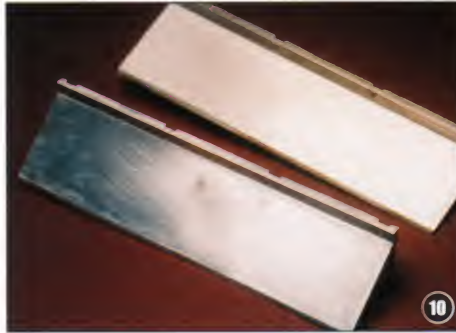


11. The Aber rear fenders prior to installation. 12. 1/16th smoke candles, Aber details with punch and die bolts. A small length of copper wire was fed into the wire insulation jacket to finish off the ignition wiring. 13. The candle tubes were lathe turned resin parts. The support structure was thinned down from the Tamiya kit parts. 14. The resin replacement copies of tow cables painted and weathered. Filters and washes were heavier towards the bottom of the tank. 15. The mud on tracks was created the same as groundwork. It's a mixture of Spackle paste, white glue and earth colored pigment colors. This also illustrates the S&T replacement resin track with cutouts in guide horn. Note how whitewash is worn in front of bow gun from the crew climbing on.

The armored exhaust covers received a makeover but, unfortunately, are completely hidden once the photo-etched exhaust shields are fitted in place. All the tools, including jack, were completely rebuilt using styrene parts and a punch and die set.

The kit's barrel and muzzle brake are nicely done and Jim used his lathe to just kiss off the seam and leave the barrel perfectly smooth.

The last big hurdle, but not the least, was the Tamiya tracks. Although in broad strokes they are very nice, every link has a visible injection mark and each is also missing the small rectangular guide horn cut out.



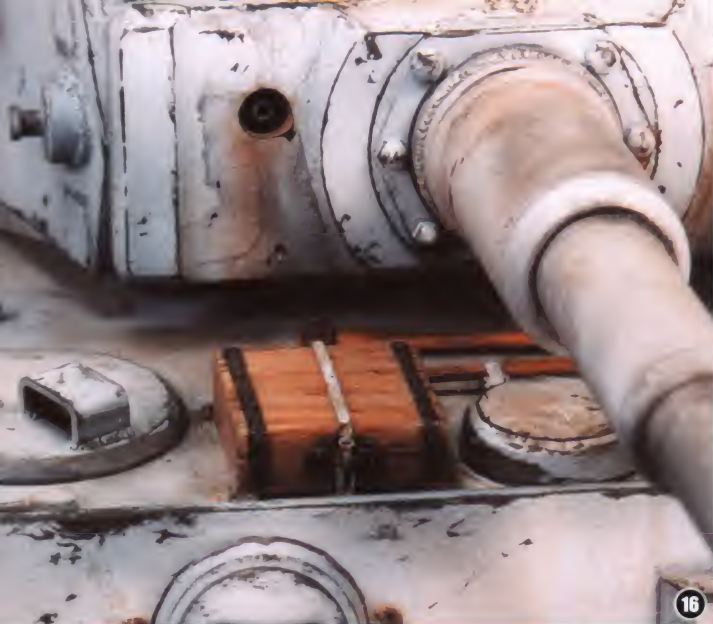
The only solution was, well, make new tracks. Jim created a new master pattern and mold. He then ran up the appropriate number of track links in resin, and boy, what a difference they made in the Tiger's overall appearance! These are now available as a special order from S&T Models for those modelers looking to upgrade their Tiger's tracks.

When completed, the model is quite heavy and cumbersome and a lot of the Panzer was painted before some of the details were added to avoid breaking too many small pieces. Mud was pre-applied and painted before the tracks were installed for the same reason.

In my opinion, Jim did a magnificent job in bringing the Tiger to "life."

Final painting of the Tiger

Once Jim turned over the super detailed Tiger I to me for painting, I was overcome with that feeling of "Wow! This is cool! It's a shame to paint this thing." I really love looking at the scratch built



parts: brass, styrene, resin, and the putty welds, but it was an inspiration to try to bring a sense of realism to the paint job.

For airbrushing my armor, I always use Tamiya paints. The base color I shot the tank was XF-63 German Gray, and after this dried, I taped on stencils cut for me by a buddy of mine, airbrush master Scott Carter, and shot through those with XF-2 white.

Next, I laid down the "white-wash," which consisted of various densities of XF-2, in which some areas were opaque and other high "wear" areas, such as the top of the hull and turret, were more transparent.

Once I was finished with this stage, frankly the model didn't look very good, but this is the foundation on which I will build.

When weathering armor, I think about what portions of the tank will show the most wear and tear. These are the high points and edges of all the components. These specific areas were hand painted with various Vallejo model color paints. Like the Tamiya paints, these are acrylic and won't be affected by paint washes in enamel or oil paint in the next painting phase. While working with the Vallejo gray acrylics, I painted scratches and nicks into the whitewash. At this point, one should check their references and not over do the paint chipping and scratches, as a lot of armored vehicles didn't last very long in combat and were either destroyed or sent back for repairs before getting all "chipped" up. As modelers, we must find a balance between what looks cool and what is accurate.

The term "filter," is new in the armor modeler's vocabulary. This step, which is a very transparent wash in enamel or oil paint, alters the base color, kills the spray painted look and add realism. Filters coupled with heavy washes in the lower areas of the tank, like the running gear, really bring the Tiger to life. I finished off the Panzer with MiG pigments; tiny touches of rust colored oil paints in select places and graphite/metal glints around intense wear areas.

The groundwork

The look of the area surrounding the city of Kharkov during the battle, was cold, muddy, snow-covered and hard-packed ground. Another detail that seemed to populate the real photographs was simple dilapidated fences. Keeping these features in mind, I began my groundwork.

Starting with a beautiful hardwood base of enormous proportions, (16 x 26 inches), crafted by



16. Edges and high points were painted with various Vallejo shades of gray to show the whitewash rubbing off. The jack block was painted with Humbrol paint to simulate wood. The Tiger's mantlet shows off its powerful lines in this photo. 17. The mesh cloth of the air filter trunks is nicely rendered stock from the Tamiya kit. Weathering is important in selling the realism. 18. Impressive details of the early Tiger I's engine deck. Note the fine welds on the Feifel air filter trunk flanges. The delicate latch details on the storage bin were created from Aber photo-etch. The Jerry can is another S&T item.

MMiR RECCE

Tamiya Tiger I Early Production. Kit number 36230 (so-called "static version"). Kit graciously provided by the manufacturer. Suggested retail price \$393.00.

Aber Tiger I detail set. Kit number 16K01. Kit graciously provided by the manufacturer. Suggested retail price \$199.00.

The following S&T products were created for this diorama:

16008, 6 Jerry Cans. \$15.00

16013, SS Tiger Crew Battle of Kharkov 1943. \$80.00.

(These two figures are also available separately as 16014 and 16015)

16016, Panzer Grenadier Unterscharführer Kharkov. \$45.00.

16017, Panzer Grenadier MG42 Kharkov. \$45.00.

16018, Rottenführer Kharkov. \$45.00.

16019, Schütze Kar 98 Kharkov. \$45.00.

16022, Panzer Grenadier Kharkov. \$45.00.

16025, Tiger I Early Tracks. \$65.00.

References

Platz der Leibstandarte. The SS-Panzer-Grenadier-Division "LSSAH" and the Battle of Kharkov January-March 1943. By George Nipe and Remy Spezzano. 2002, RZM Imports, Inc. ISBN 0-9657584-2-7.

Jim, I cut depressions into the top portion of the base to add depth and built up other areas with Styrofoam and epoxy putty to vary the height.

Next, I covered the base with my "mud" mix, which is a concoction of Spackle, white glue, real fine dirt and powdered pigments. I added various Humbrol earth-tone paints, washes and dry brush work, then finished off the groundwork. Once dry, "snow" was applied using Hudson and Allen's snow mix, their slush mix, and for melting snow, I tapped micro-balloons onto fresh acrylic gloss varnish. To create the water puddles in the depressions, I used a product called Enviro-Tex, an epoxy "varnish like" material used for bar tops, available in craft shops, and acrylic gloss varnish on top of the mud for that wet look.

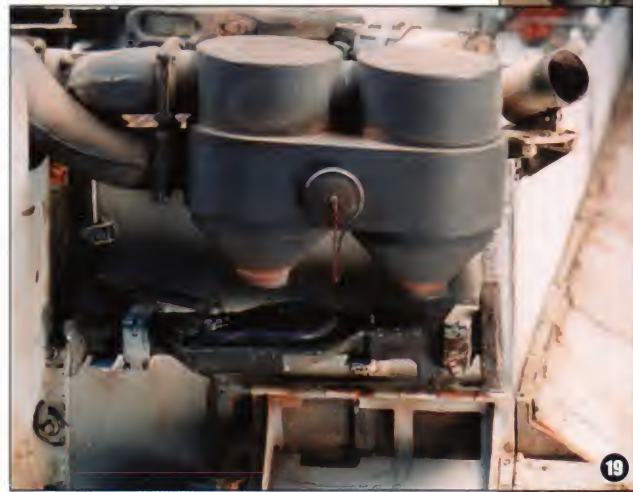
The fence was constructed out of balsa wood and heavily aged for a realistic finish.

Conclusion

This was a gigantic undertaking from all aspects: number of scratch built figures, gear and weapons, the large footprint of the groundwork, super detailing of the big Tiger I, and the painting of both the Panzer and the figures. The diorama was created over a two-year period, but several months passed during the construction that Jim or I didn't touch the project (we needed a break!) while we worked on other things.

Although intense and time consuming, it was fun and very rewarding. And, one day, I'll give another 1/16th scale diorama a go again. ~~☹~~

—John Rosengrant



19. The intense weathering evident on the rear hull was built up with mud mix and heavy washes. 20. The Aber exhaust shields, along with rear and side fenders, add wonderful scale detail. 21. Snow was created by using Hudson and Allen's snow mix, which looks good in the large scale. The more melted areas were micro-balloons mixed with acrylic gloss varnish. 22. The markings were created using homemade stencils cut from 1/35 decals blown up on a copy machine.





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23. Aber fenders were bent slightly for that authentic combat look. The mud on the road wheels was my mud mix and powdered pigments. 24. Unfortunately, much of the very fine detail on the smoke launchers remains in shadow on the finished model. 25. The variety of the different uniforms used in the Kharkov Battle is evident in this shot. 26. Actual fine dirt, along with powdered pigment, was mixed into my mud mix of Spackle and white glue. Acrylic varnish and Enviro-Tex epoxy resin was used for wet look. 27. When looking at Kharkov photos, fences like the one I created show up frequently. I constructed it out of balsa wood. The fence adds a finishing touch to the ground-work. 29, 30. These bird's eye views provide a good overall view of the figure composition.



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When it comes to figures, what is most important to me is to create characters, not stiff mannequins, with, hopefully, real faces, weather-beaten clothes and gear, and realistic poses that convey attitudes and emotions.

I've sculpted many figures throughout the years, but this is my first large-scale diorama with more than three figures. I thought that would be a fun challenge.

After getting my hands on the Tamiya Tiger I, the first thing I noticed was that standard 120mm figures did not fit in the hatches. After some quality time with my ruler and calculator, I created a new anatomy chart, which shows a six-foot man in this scale to be approximately 112mm—not 120mm. Suddenly, the proportions of the Panzer crew started to make sense. Armed with this new information, I created sculpting “bucks,” which consist of an upper torso section and a lower pelvis. These are handy because it quickly gives a proper starting place that can be connected with artist's armature wire to the heads, hands and boots.

The centerpiece of any figure is the head, there-



A. Sculpting buck of MG42 gunner with the resin masters of the head, helmet, boots and MG42. Artist's armature wire is used for the arm and leg structures with “Propoxy 20” (a quick setting epoxy putty) to solidify the legs. Note that body language and attitude are evident, even at this early stage. B. A close-up MG42 Gunner—all clothing was sculpted with Magic-Sculpt. The resin parts are castings from masters created for S&T models. C. The MG42 Gunner and all the figures were inspired by actual photos from the Battle of Kharkov. D. Another shot of a figure in the armature stage. E. The grenadier with the K98 completed with Magic-Sculpt clothing. Due to how the figures fit next to each other, I switched the arm that held the rifle. F. This is the scratch built master pattern for the K98. G. This shot shows the overall figure layout. Varying the heights of the figures adds visual interest and allows you to see each individual. The armature wire is very pliable, enabling one to quickly re-adjust the sculpting armature. Once the pose is set, I solidify it with Propoxy 20. H. Close-up of finished MP40 figure. When sculpting clothing in Magic-Sculpt, I work in layers, starting with pants and tunic, then moving out to the anorak. The fur on the hood was meticulously detailed with a sharp pointed sculpting tool.





fore I sculpt the face in a hard clay, Chavant P40. This material never hardens, so I can take my time capturing both the expression and the most subtle of facial features. Once I finish modeling the head, I mold it in silicone to create a resin copy. The next step is to create all the other masters, such as weapons, equipment and boots, then mold them like the head. I now have all the basic components to animate the figures and compose the scene.

Painting

All of my figures are painted predominantly in a combination of Humbrol enamels, Vallejo model color acrylics and oil paints. The idea is that whatever paint works best for the effect I am trying to achieve—I use. The Humbrol paints, I think, have a nice soft flat look that I feel works well for clothing. It is fairly easy to blend, shadow and highlight. The Vallejo paints are great for sharp and tight details. Oils are useful when weathering and I combine them with Humbrol when painting faces.

When studying photographs of the Waffen SS uniforms used at Kharkov, I noticed a lot of variation in the basic colors of the special winter anorak and I worked this into the color palette of my figures. I felt that it was important to add this visual interest to the figures in order to realistically portray these soldiers.



I. The finished Unterscharführer was based on an individual named Paul Klose. He is heavily illustrated in the RZM book wearing the unique rabbit skin vest. Note the strip styrene for belt on master. J. The Panzer crew finished masters. Duro epoxy putty was used for certain details, such as the death heads on the headgear. Proper scale is crucial when figures interact with vehicles. There is nothing worse than huge figures dwarfing a tank! K. The painted Panzer crewmen with a close-up of the turret. L. The commander's winter combination and winter pants of the Unterscharführer were painted in a warmer Humbrol white in contrast to the colder white of the Tiger I. Weathering is critical in creating authentic looking figures, portrayed here with dirt and mud ground in the knee and elbow areas.



A full body shot of the MG42 gunner with mud on his boots and dirty weathering on his clothing.



Close study of Schütze with whitewashed helmet and winter white weathered trousers.



This shot shows the color variation between the anorak's, the Rottenführer's tannish look and the MG42 gunner's field gray.



This figure was added late in the diorama's construction because I felt the need for a figure to transition your eye to the ground. Without him, the composition felt "top heavy."

Rad Cable Krad

Building the Dragon Sd.Kfz 2/2 Kleines Kettenkrad



The German firm of NSU developed the Kettenkraftrad as a light duty tractor, using the front fork assembly from its motorcycle production. Commonly known as the Kettenkrad, it proved very versatile and popular with the troops, who used it in many different roles. The Luftwaffe found it especially useful as an aircraft tug. It was also used for laying communication cable as the Sd. Kfz. 2/1 and the heavier 2/2.

Overview

We have not seen a new Kettenkrad kit since the Tamiya release from the early 1970's. Dragon's version takes many strides forward, creating a realistic and detailed model. Primarily, it matches the late production profile, but in reality, rebuilds and upgrades often blurred these distinctions. This kit follows Kettenkrad kit 6114, boxed with a Puppchen Raketenwerfer 43. Naturally, both kits are the same. However, the Sd.Kfz. 2/2 kit adds the field cable frame, cable attendant tools and early production eight-spoke wheels. Also found among the many sprues inside the box are a full set of very small individual link tracks. The kit's woven cord segment is really too short to use and will not

match the cable already molded to the spools. Lastly, Dragon's "Frozen Battleground" four-figure set is included. Interestingly, the soldier poses are the same but their weapons are replaced with communication tools! There are two additional figures, a driver from the kit 6114 and another half driver in winter garb matched with the torso of one of the "Frozen Battleground" soldiers.

Good attention to detail is evident in most of the parts, but there are some exceptions. Fit can be poor in some areas. The molding is sharp, requiring minor cleanup. Occasional ejector pin marks are easy to repair. The instructions are clear enough and in the older Dragon style of using blowup diagrams and calling out the paint colors along the way. Waterslide decals will create two generic vehicles from the Eastern Front. I made minimal substitutions and corrections to the kit to emphasize Dragon's product.

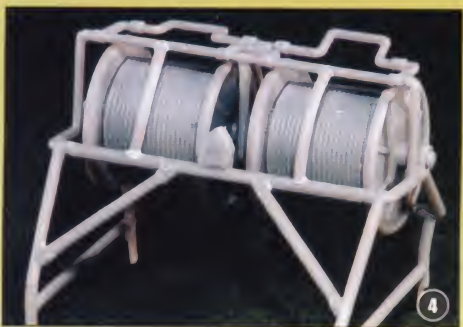
Interior and hull

The engine and transmission are the interior's centerpiece, formed from two halves. Augmenting it is the air cleaner, carburetor, drive housings, foot controls and floor slats. Final details are the driver's seat and control sticks. The resulting interior

is basic, but adequate. This, of course, can be enhanced at the builder's discretion. This module is stand-alone and is convenient to paint before installing inside the hull tub.

Separate panels attach at right angles to form the hull tub. A twist originating in the floor needed careful gluing and clamping to straighten. The instrument panel fits poorly and there are no instrument dial decals. Side panniers, A13 and A14, also have fit problems, but trimming the mounting tabs will help. The hull sides bow outward toward the top, a problem corrected by installing a horizontal brace within. The lower rear panel leaves more gaps that need attention. The ventilation panel, A17, is also ill fitting and sits better without the mounting pips.

Replacing the solid engine hatch ports with fine woven mesh greatly improves its appearance. Nylon thread replaces the simplistic kit handle. The kit's rolled compartment cover is unrealistic. It was common to stow the cover elsewhere, but if done this way it will be necessary to fill the placement hole. Strip styrene covers the ugly mounting slots behind the passenger bench seat. The exhaust muffler and related piping omission is surprising. The molding suggests it, but not convincingly. A scratch



1. The transmission, engine and breather ducting subassembly ready for installation. 2. The engine module is stand-alone and is convenient to paint before installing inside the hull tub. 3. At left, replacing the engine hatch solid ports with fine woven mesh greatly improves its appearance. Nylon thread replaces the simplistic kit handle. At right, the engine cooling intake housing. 4. The twelve-part rack. Crafter's black bead line wrapped around the cable spools improves the molded on detail. The fit is surprisingly good. 5. The spool rack temporarily in place. 6. The delicate suspension, featuring early style eight-spoke wheels. Not installed yet are the outermost wheel set. Cementing the individual

track links together was tedious. Their thickness is slightly over scale. 7. The fork mount housing fit better once trimmed down. The fork itself is adequately detailed and goes together well. The fender mounted registration plate did not appear on all vehicles. 8. Removing the simplistic and inaccurate front running lights is possible since not all wartime production vehicles had them. Hex bolt heads detailed the overly simplistic Notek light. The headlight lens is solid, and replaced with MV Products lens L185. 9. The front and rear panels required frequent filling and sanding to remove gaps. The NSU logo in relief should be at the front left side. Perhaps this will make a future appearance in a photo-etch set.

built one requires major surgery, but an easier route is to scribe boundaries on the hull sides and properly paint and weather it later on.

Some vehicles had two rectangular taillights placed at each corner of the rear hull, but none are present. Also missing are two rifle holders, but their fragility is probably best left to the photo-etch manufacturers. The mud flaps are thick and ramrod straight, so thin styrene replacements took their place. The engine cooling intake housing at rear center is simplistic and too thick scale wise. Improvements involved thinning the outer edges and placing woven mesh inside. References show this housing in various shapes during production. The tow pintle is adequately detailed.

Removing the simplistic and inaccurate front running lights is possible since not all wartime production vehicles had them. The fork mount housing fit better once trimmed down. The fork itself is adequately detailed and goes together well. Lead wire enhanced the springs. The wheel has good detail, only requiring light sanding to the center mold seam. Apparently, the fender mounted registration plate did not appear on all vehicles. Removing the kit one simplifies repair of the fender's nasty join

line. Hex bolt heads detailed the overly simplistic Notek light. The headlight lens is solid, and replaced with MV Products lens L185. A light switch and power lead detailed the handlebar. A soft cover above and below the fork assembly protected it from the elements, but the kit provides no means to do this. References show the shovel, axe and cable tool not always mounted to the hull sides, as Dragon suggests. Leaving them off implies a field conversion using an existing Kettenkrad pulled from service in another function.

Suspension

The separate wheel arms are tiny and must be carefully detached and cleaned up. Locking tabs will secure all the arms at the same angle, but inspect them to be sure. Dragon designed the kit with slightly compressed suspension. This seems to match actual photos of Kettenkrads loaded with gear or crew. Cleaning up the early production eight-spoke wheels is easy.

Dealing with the tracks is tedious and no one has come forward with an aftermarket set at the time of this writing. There are 96 individual links that, when assembled, are held together by a sepa-

rate rubber pad. Extra links will allow loss/damage. The pads have bolt heads, and the links have good detail, especially considering their small size. However, their thickness is slightly over scale, especially noticeable when viewed from the side. In theory, cementing the pads as directed traps the links, enabling working tracks. This is possible, but not without difficulty. The delicate bonds are weak and tend to break under very little stress. Cementing the entire track run to the suspension and avoiding handling as much as possible is important. Another option is to ignore the workability aspect and cement the entire run together without the track pads, then mount to the suspension while still soft, then add the track pads.

Cable spool rack

The cable rack is 12 parts. They are cemented together, once scraped and sanded smooth. The molded on cable looks too perfect and does not match the woven string Dragon provides. Black bead line, found in a craft store, is perfect for this purpose. Super glue holds it down and it takes paint and weathering well. The cable rack was painted and weathered separately from the Kettenkrad.



10. Here the crafter's black bead line is evident. The inner hull is air-brushed Hull Red, the seats are brushed Red Leather. The kit mud flaps were too stiff. Strip styrene replaced these. The muffler is barely visible. The kit does not define it well enough, but from this view, it isn't very noticeable. 11. The camouflage is Dark Yellow mottled with Yellow Olive, both from the Vallejo Model Air paint line. A second mist of Dark Yellow fades out the Yellow Olive. 12. Abrasion specks are evident around edges. Remember the old adage "less is more." Earth color dry pigment sprinkled over wet matte varnish creates the dirty effect on the hull. 13. The cable device is a browner variant of Dark Yellow to contrast with the base color. The spools, brushed Dark Grey, provide some contrast to the Dark Yellow base. 14. There are no instrument dial decals. Spare aircraft model sheets provided those seen here. A drop of clear gloss seals and provides the glassy look.


Painting and markings

A variety of paints and materials applied in different ways depict a vehicle in a temperate climate on the Eastern Front. The primary colors used are Vallejo Model Air acrylics, airbrushed through an Iwata HP-B. Details were painted by hand using Vallejo Model Color paints. The engine and transmission is Gunze Sangyo Mr. Metal Dark Iron. When polished it creates a realistic metallic sheen. The inner hull is airbrushed Hull Red, the seats are brushed Red Leather. The camouflage base is Dark Yellow, mottled with Yellow Olive. A second mist of Dark Yellow fades out the Yellow Olive. The lower hull and suspension is Dark Earth. The cable device is a browner variant of Dark Yellow to contrast with the base color. The spools, brushed Dark Grey, provide some contrast to the Dark Yellow base. The tracks are airbrushed Dark Earth, then the pads and the front tire brushed Flat Black. The kit markings are actually quite nice. Requiring no setting solutions, they blended in perfectly with the model's surface.

The weathering steps used primarily dry color pigments. The whole model receives a thin wash of Earth color pigment dissolved in acrylic airbrush cleaner. This imparts a dusty look and settles into crevices as dust normally does. A sharpened gray artist's pencil, tapped lightly around the edges simulates random abrasion. The tapping technique is

easily overdone; observe the old adage "less is more." To simulate dirt accumulation on the lower hull, earth color pigment was sprinkled onto wet matte varnish. Graphite simulates track wear. Spare aircraft instrument decals, applied and sealed with clear gloss depicted the driver instruments.

Conclusion

Dragon's updated Kettentrak comes packed with detail and potential. Patience and steady hands are helpful, but the result is rewarding. Detail sets are certain to enhance the weaker details and present conversions, such as the "Springer" demolition vehicle. 

—John Robinson



MMiR RECCE

Sd.Kfz 2/2 Kleines Kettentrak w/sch. Feldkable. Kit number 6128. Kit graciously provided by the manufacturer. Suggested retail price \$19.98.

References

The Kettentrak, by Friedhelm Abel, Schiffer Publishing, Ltd., West Chester, PA, 1991. ISBN: 3-7909-0219-5. Development history and combat usage. Illustrative photos and user manual illustrations. *Allied Axis Issue 2*, Ampersand Publishing Company, 2000. Twelve pages of wartime and restored Kettentrak photos with descriptive captioning. *Red Museum Line No 22: Kettentrak in Detail*, by Frantisek Koran & Jiri Starosta, Wings & Wheels Publications, London, 2002. ISBN: 80-86416-18-6. Restored Kettentraks in close-up detail. Forty-eight pages with 165 color photographs.

American Fist

A simple casting technique for architectural structures



The theme of this armor vignette was a USMC LVTP7 crashing through a roadside monument of Saddam Hussein. It was a common scene in recent months, with widely publicized photographs of Allied (don't you prefer 'Allied' to 'Coalition?') vehicles paying tribute to the many murals of Saddam that dotted the Iraqi landscape. If you've got a hankering, here's how to build one.

STEP 1: After determining the size of the monument, three box molds were made from Legos (actually Mega Blocks). The mold seen here is for the side supports.

STEP 2: Use sheet plastic seal to cover any exposed Lego tops or bottoms; in other words, you want smooth surfaces inside the mold.

STEP 3: Spray the interior of the boxes with Pam or any other butter-based cooking spray. It makes an excellent mold release. Then mix some Durham's Rock Hard Water Putty, available at any craft store or home improvement center. It sets quickly, doesn't 'smoke' when you mix it, doesn't shrink and it's tougher than plaster. Mix the powder with water to the consistency of thick mud, then pack it into your molds. Scrape off the excess with a large sheet of plastic.

STEP 4: Have ready a 'lid' for your Lego box, the exact same size as the box itself. Press it straight down against the Durham's and lock it in place with an extra Lego.

STEP 5: When the Durham's in your mixing bowl is hard, it's probably hard inside the mold as well. Remove the lid and here's what you see: a stone column with mortar joints on all four sides.

STEP 6: Disassemble the Legos to reveal your casting. I wasn't after perfectly formed stones, so bubbles, nicks and gouges are just fine—I would have added them anyway.

STEP 7: The three castings are cleaned up and glued together with superglue.

STEP 8: Paint the structure with flat white acrylic paint. Don't go for full coverage.

STEP 9: I found a clean photo of a Saddam mural online. He was wearing a white suit, which didn't suit me, so I changed it to brown in Adobe Photoshop and resized the image to fit the mural.

STEP 10: The mural was printed at 300 dpi onto clear decal paper from Bel Decal. The ink was allowed to dry for 24 hours, then the decal was sprayed liberally with Krylon Acrylic Crystal Clear High Gloss spray to seal the decal. The decal was cut from the sheet, dipped in water and applied to the

wall. (Yes, that's one big honkin' decal.) Mr. Mark Softer from Gunze Sangyo was used to make it snuggle down, then damaged sections were chipped out with a hobby knife after the decal had dried. Strips were added to frame in the mural.

STEP 11: The break in the wall was scribed with a hobby knife and broken cleanly. Rusty paper clips I found in the street were inserted into pre-drilled holes for rebar and to hold the wall in place.

STEP 12: The entire structure was treated to several washes of thinned Van Dyke Brown, Mars Brown, Raw Umber and Yellow Ochre artist oil paints. Note the affect of the wash on the areas that remained unpainted previously.





STEP 13: Back view, as the wall comes down.

STEP 14: The base for the mural wall was made with Legos and primed with Krylon White Primer, then painted and weathered. The finished monument was weathered and drybrushed and small broken bits of wall added in the breaks and on the ground. Pow—right in the kisser!

—Joe Porter

MMiR RECCE

Durham's Rock Hard Water Putty and Krylon Acrylic Crystal Clear High Gloss Spray are available at most craft and home improvement stores.

Clear Decal Paper. Order it online from Bel Decal at www.beldecal.com. Available for both laser and inkjet printers and includes easy-to-follow instructions if you've never used decals before. Twenty-five 8.5x11 sheets will run you about \$30.



A peek at what's new
on the figure front!

MiniMen



Alpine

Hey, get excited about Alpine! They are cranking out the mini-men and each one is getting better.

More useful and timely little dudes come in the form of **35012, WW2 Russian Tanker 1943-45 (1)**. This guy is dressed a bit later than the previous crewmen and he strikes a very casual pose, leaning with his elbow on a fence (hatch, fender?). The clothes have a very rumpled look and his boots also have an excellent worn look. A pair of commie binos and a map case round out his kit. Like all of the previous Alpine releases, this one has an alternate head and in this case, it's the same head in a side cap.

35013, WW2 Russian Officer 1943-45 (2) is the second of the theme and he wears the standard Soviet tanker's overall. This is a real simple, yet effective pose, with the overalls tucked into the tops of his boots. Once again, even though it's simple, it's the subtle twists that make it real. His left hand is slightly gripping his pistol holster and with his right leg bent, it really make him seem about to move. His alternative head is also a side cap.

These two are also available as a set as **35014, WW2 Russian Tank Crew Set 1943-45**.

35015, German Tanker in Summer (3) is yet another stunner and he is clearly aimed squarely at the turret of your next Tiger I. He is apparently designed to specifically lean against the inside of its cast cupola. Of course, it would be no problem to fit him into a variety of other turrets (we tried and he works in most). The only negative thing about sending him "down the hatch" is that you'll hide all that great sculpting on his legs and boots!

More please!

Blast

Did you know that this French company does figures? This, we think, is our first review of one of their miniatures. **35044F, US Ranger (4)** represents a fella right from the pages of this year's news magazines. He wears all the latest gear and is packing light for quick movement. The kneepads are a cool touch, too. True to his intended role of kicking some major ass, he carries the Colt 5.56mm M4 Carbine with M203 40mm Grenade Launcher mounted below.

It's a beautiful crisp, clean casting and the details really shine. There seems to be a dearth of good quality grunts from this period, so we would like to see a lot more from these guys (please!).

Dragon

Dragon continues to pick up the pace with tons of new figure sets, many of which contain either extra figures, or extra equipment.

First up this time is **6194, Panzer Grenadiers Wiking Division (Hungry 1945) (5)**. This four-figure set depicts four late war panzer grenadiers, all of whom wear the very distinctive SS anoraks and trousers. This has been a fairly typical modeling subject of the

past few years, but also typically, these subjects have been more steered towards the Kharkov battles, where these uniforms were first seen. In this set, the figures have been updated a bit with late war equipment, such as the StuG 44 assault weapon and the Panzerfaust.

Also, two of the figures are rendered with their trousers tucked into their fur-lined boots, indicating the reversible camouflage combat trousers (and this is how they are depicted on the box top). The grouping is actually part of a MG 42 section, so while one totes the gun itself, the loader is rendered humping the extra ammo. A variety of equipment and weapons is represented, with the spare barrel container, gun cleaning kit and shovel all in evidence.

Lots of possibilities with this one.

A subject that is rarely visited is

6196, German Anti-Tank Team (France 1940) (6).

This set depicts two, two-man anti-tank teams armed with the 7.92mm Panzer-büschle 39. This is a weird weapon that has only been rendered once before in plastic that we are aware of and this was in the older Tamiya weapons set of years ago. The PzB 39, as it was known, was a single shot weapon with a sliding breech. Reloading was accomplished by dropping the pistol grip and trigger. Although rendered ever so slightly absurd by later technology, the gun could penetrate 25mm of armor at around 300 meters. Later, most of these weapons were converted to grenade launchers and as such they were known as "7.92mm GrB 39."

Anyway, where were we? Oh yes, the figures. One team is prone, while the other is rendered "on the prowl." The uniforms and equipment are all distinctively early war, as the title implies. Not much effort would convert any of them into infantrymen. With the exception of the prone figure, the only things that really set them apart are the belt-mounted 7.92mm ammo pouches.

This set is a very clever addition to the long line of Dragon figure sets.

6198, U.S. Army Support Weapons Teams (7), is another set chock full of weapons action. What you get here is actually three separate, unrelated two-figure teams, each attending to a different weapon. First up is a rather unique team manning the M18 57mm Recoilless Rifle. This was a quite potent little tool for infantry on its own. It fired a 57mm HEAT round and would have been a nasty surprise at close range. The M18 was a very late war development that was fielded for the first time during "Operation Varsity," the final jump of the war over the Rhine River in March of 1945. As such, the accompanying figures are rendered as airborne types, complete with folding stock M1 carbines.





Also a very unique subject to see in plastic.

Next up is a Browning M1919A4 machine gun team. This is pretty simple, with one guy cranking away on the weapon, while the other feeds a belt of ammo. The gun is mounted on your basic M2 tripod. Unlike the dudes above, these guys wear the standard field jackets with boots and leggings.

The last team is firing the M2 60mm Mortar. Like their MG counterparts, they are also dressed in standard GI garb. One of the figures is depicted holding the tripod steady, but we didn't think that was such a great idea, so we tucked an extra shell in his hand and positioned him at the rear.

Unique seems to be the theme this time and another example is **6199, 2nd SAS Regiment (France 1944) (8)**. This is a rather interesting and eclectic group that features a variety of weapons and clothing items. Without close scrutiny, they initially appear to be British paras. But, given their very elite status in the British military hierarchy, the "Special Air Service" favored what performed the best. While two of the figures are rendered with the Denison smock, one wears the famous leather Jerkin and the remaining figure wears the rarely seen windproof camouflage smock. Known officially as Smock, Windproof, Camouflage this garment was introduced in 1943 and was issued with trousers, as well. This is the first time that we have seen on a 1/35th-scale figure. The weapons are rather unique, too—at least for a group of British soldiers. Beside the Bren guy, the other weapons are M1 Carbines and a M1928A1 Thompson. A clever observation on the part of Dragon is the rendering of the earlier weapon, distinguishable by the ribbed barrel with the Cutts compressor on the end. Good show, old chaps!

If you're looking for some action, look no further than **6211, U.S. 29th Infantry Division Omaha Beach D-Day 1944 (9)**. This six-figure set is brimming with weapons and equipment for the assembled group. As titled, this set represents a first wave assault group fully equipped for a trip across the channel—and across the shingle. In addition to all the standard GI infantry kit, the rubberized M7 Carrier for the M5 gas mask is in evidence, as is the gas brassard (it turned color when exposed to gas) and the M1926 Life preserver belt (although, only the squad leader is wearing his). This last omission is perhaps deliberate, as this group, with only minor alterations, would work as a partial squad anywhere in the ETO.

By the way, if you're in the market for the Italeri LCM 3, this set is included as part of the kit.

6237, U.S. Army Anti-Tank Team (10), is an interesting follow-up to 6198. This time it's two teams, each toting a different version of the U.S. "bazooka." There are two distinctive teams depicted in the set. The first is a somewhat early war team wearing field jackets and leggings and practicing their craft on a M1A1 2.36 Rocket Launcher. Its wooden shoulder stock and rectangular sighting device at the end of the barrel easily distinguishes this weapon. An M6 Rocket Carrying Bag is also provided to place alongside the team.

The second team is all decked out in later M43

uniforms with buckle top boots and one of them is hefting the M9A1 Rocket Launcher. This was a late war improvement over the earlier M1A1 and was originally issued to paratroopers. With the exception of the boots, both these guys could easily pass for airborne. One way to distinguish this later version of the weapon is to look for the flared barrel end. Like the first set, an M6 bag is provided to hang off the back of the GI with the launcher.

His partner, not just content to load the rockets, is armed with a M1 Garand that is tipped with the "better than nothing" M9A1 Anti-tank Rifle Grenade.

Another great set with tons of potential.

Nemrod

35048, Civilian June 1944 (11) is part of the series released from Nemrod representing civilians from the time of the Normandy invasion. We have only managed to get the one for review and in this case, he's an older chap wearing a vest and a cap. He has his sleeves rolled up and is casting a wary eye at the proceedings. Perhaps he wants the Germans to come back?

Either way, this simple, single piece casting would be a terrific addition to any street scene.

Resicast

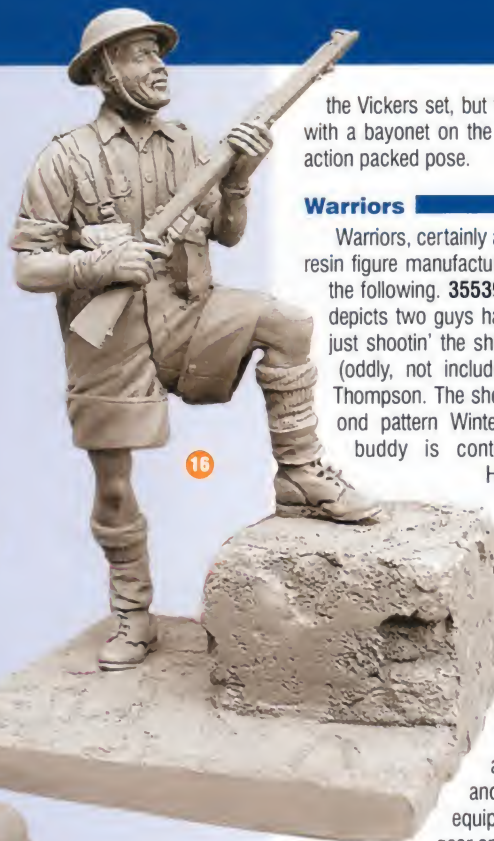
Resicast pumps up its excellent line of British resin figures with the following. **35581, Vickers Machine Gun & Crew Winter Dress (12)** is a three-man team wrangling a .303 Inch Vickers Machine Gun. This 7.7mm weapon could send 450-500 rounds down range per minute. It was typically crewed by three guys, one to fire, one to feed ammo and another to keep the bullets coming. Resicast has rendered the water-cooled version and the cloth jacket is crisply rendered. All these guys are dressed up for chilly winters with jerkins worn over battle dress with gloves, and in the case of the figure firing the weapon, a balaklava. The loader is rushing up with more ammo and his great coat is neatly rendered flowing around his legs. A water can is included in the set, but the dog ate ours...

35582, Two Russian Soldiers (13), is a bit of a departure for Resicast. This is the first time that we've seen them do a set of Russians and this set depicts two regular ol' Ivans hanging out. Both are dressed in the quilted "telogreika" jackets for nippy mornings. One totes the PPsh sub machinegun and the other carries the more potent 7.62mm DP Machine Gun with its distinctive round magazine. There's a mix of headgear, too, with one wearing the Russian steel pot and the other topped with a "shapka-ushanka" pile cap.

35583, Soldier Attacking in Greatcoat (14) rounds out the Brits this time around. This figure is actually a derivation of the ammo loader in



HEY MAN!
HERE IS MY
SHOVEL?



the Vickers set, but this time he is charging forward with a bayonet on the end of his Enfield rifle. A nice, action packed pose.

Warriors

Warriors, certainly among the most prolific of all the resin figure manufacturers, continues in that vein with the following. **35539, U.S. Tanker Pair WWII (15)**, depicts two guys hanging out in front of their tank, just shootin' the shit. One guy leans on his shovel (oddly, not included), while the other hefts his Thompson. The shovel guy wears the popular second pattern Winter Combat Trousers, while his buddy is content to wear the One-Piece Herringbone Work Suit. Shovel guy wears a wool cap and Mr. Thompson sports a tanker's helmet.

35540, British Soldier Tropical Uniform (16) makes up a very nice vignette of a Tommy hefting his Enfield on the steps of city hall. He's all decked out for the hot weather with short trousers, high socks and gaiters. Although he's nice and cool, he has still found time to equip himself with a full set of web gear and ammo pouches for his rifle.

Although beautifully executed, the sculpture strikes us as a bit on the large size, but this should not be a problem if you're displaying him "as is." And with the complete resin base, this is just how he should be seen!

35541, U.S.M.C. Tank Crew WWII (17) is a real simple set composed of three half figures. All are wearing tanker's helmets and overalls, so they don't really HAVE to be Marines. They would look good poking out of just about any Sherman hatch.

35543, Wehrmacht SPG Team (18) is yet another loose definition. The set is composed of two figures and both are dressed in panzer wraps, so the choice is yours as to how you paint them. Both are rather well animated and we especially liked the open jacket of the enlisted man.

35544, Russian Tanker with gas can (19) is just a single guy humping a can of fluid. He wears the basic tanker's overall with the "Sam Brown" style belt. The padded tanker's helmet rounds out the ensemble.

Hey, we've got some drama, man! **35545, WWII USMC Stretcher Team (20)** is a five figure set that portrays a stretcher team taking the strain with a wounded Marine on board. This is a wonderfully complicated little set with dozens of parts for the various members of the team, the stretcher and its occupant. A fully detailed base is also included, if you wish to display the team on its own. However, we just know you'll want to add this to a larger scene, especially with so many other figures in this terrific and lengthy series.



I COULDN'T
FIND ANY
SHOVELS,
BUT HERE'S
SOME GAS



35548, SS Officer and Dispatch Rider (21) provides two seemingly unrelated figures to dress up your next diorama. Although they may not seem to have a common purpose in the box, they certainly are nice little sculptures on their own. Our favorite is the motorcycle dude, who has been sculpted with his raincoat buttoned around his lower legs. Not too common a sight in 1/35th-scale. He also totes an MP40 just for fun. A very useful set.

More drama for your mama can be found in the form of **35549, "Banzai" (22)**. This is a four-figure set of some very pissed off looking Japanese characters on the way to meet their ancestors. Bayonets are fixed and swords are drawn. Heck, one of the dudes has already taken the bean! A nifty vinyl mask is provided to help you create a flag for this guy, but you'll have to supply the foil and the flagpole. Like the stretcher team, this set includes a completely detailed resin base.

The last treat on the Warriors buffet today is **9062, Fallschirmjäger Bust (23)**. If this big guy looks familiar, it's because he is a reduction of a previous Warriors full figure sculpted by John Rosengrant. It was a marvel then, and still is. From the chicken wire on the helmet right down the amazingly detailed StuG 44. If the big stuff is your bag, you'll want to run right out and nab this guy, before he disappears, too!

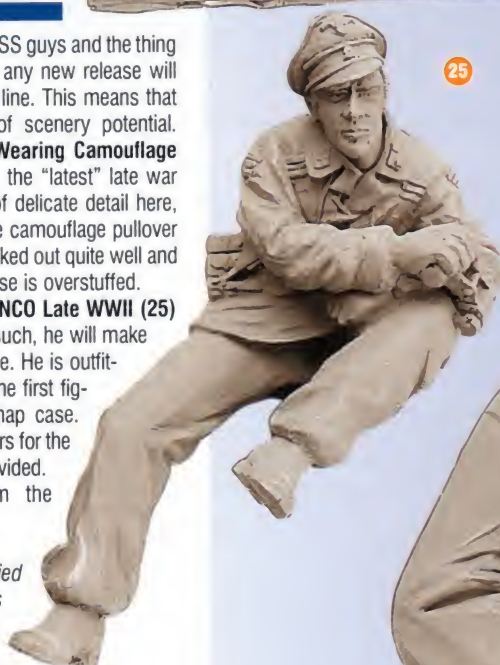
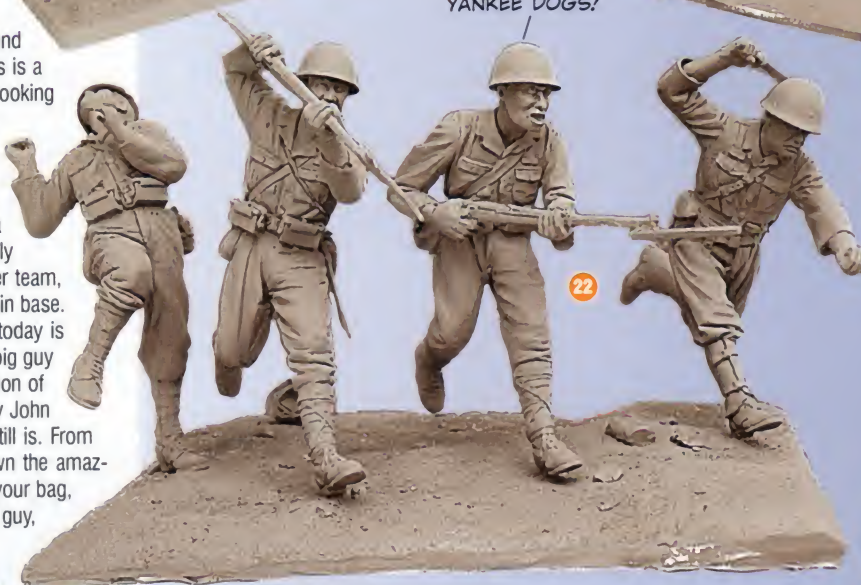
Wolf

Wolf is always good for a few SS guys and the thing we like about them is just about any new release will mesh quite well with the existing line. This means that any new sets will create lots of scenery potential. **WAW46, SS NCO Late WWII, Wearing Camouflage (24)** is a stand-alone figure with the "latest" late war cammy jammys. There is a lot of delicate detail here, with all the various aspects of the camouflage pullover rendered. His web gear is also picked out quite well and we really like the way his map case is overstuffed.

WAW47, Semi-reclining SS NCO Late WWII (25) is much the same story, and as such, he will make for an interesting companion piece. He is outfitted almost exactly the same as the first figure, with the exception of the map case. Both figures carry magazine holders for the StuG 44, but no weapons are provided.

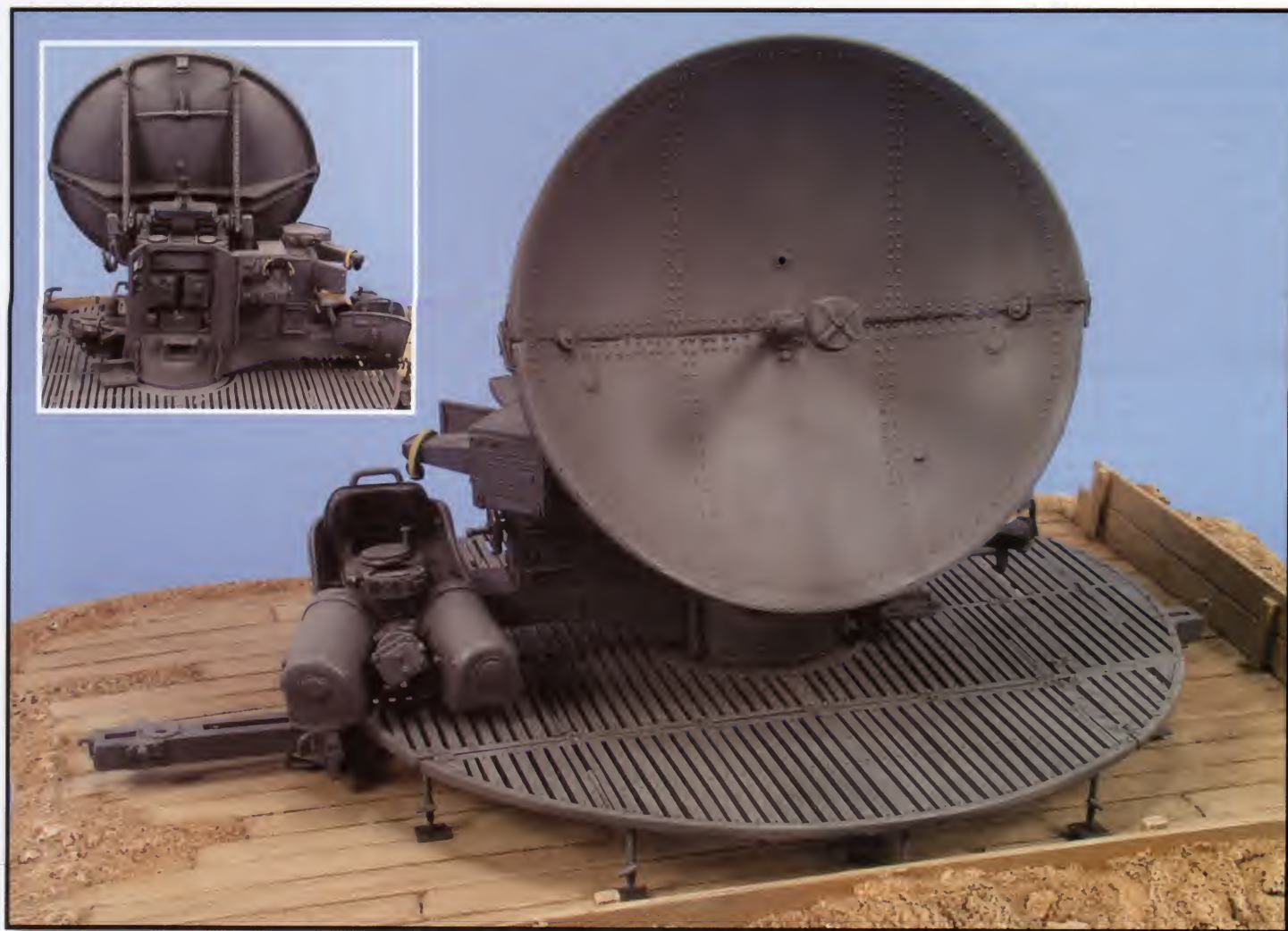
More excellent value from the Wolfenators!

The various manufacturers supplied samples for Mini-men, as well as Squadron Mail Order, who provided the Nemrod release and Mission Models who contributed the Blast example.



Early Target Acquisition

Building the DES Kit of the FuMG (Flak) 39D Würzburg Radar



I have known for a long time that the Germans had various types of radar during World War II, but before starting this project I had no idea how extensive the types and numbers were. I, and surely many others, were raised on stories of how the British were the inventors of radar technology. But, in fact the, English "Chain Home" system deployed during the Battle of Britain was actually a very poor and dead-end early warning radar, technologically speaking. The Germans, totally independent of the British, developed their own radar capabilities and by the time the war started were actually ahead of the British, at least in the air target acquisition area.

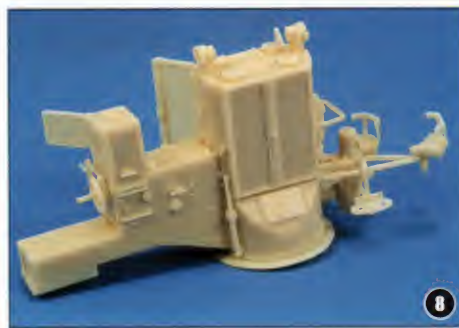
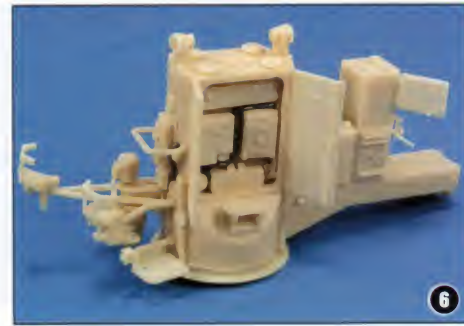
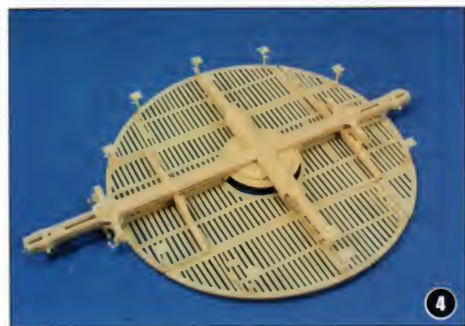
The Germans can trace their radar development as far back as 1887 when a Karlsruhe University professor, Heinrich Hertz, discovered that electromagnetic waves were generated around a radio inductor when being used as a transmitter. Experiments were carried out before World War I, but apparently no one paid much attention. This is in spite of the fact that one of the principle experimenters, Scherl Dominik, was the author of science fiction books and wrote about radar.

Serious work was not started until 1934 when a Dr. Kühnhold founded the "Gesellschaft für Elektroakustische und Mechanische Apparate" (GEMA), or in English, the Association for Electroacoustic and Mechanical Equipment. The first demonstrations were presented to the German Navy on 24 October 1934. While impressed and providing some funding, the Navy did not show any further interest at the time. From this early start GEMA went on to develop the first German operational radar known as "Freya," which could detect aircraft out to 75 kilometers. Two other companies that got involved in radar development at this time were Lorenz and Telefunken. The first Freya was deployed to operational units at the end of 1938. By the time the war actually started on 1 September 1939, eight Freya's were operational. It is important to understand that these early radars were only early warning and not tied into any kind of anti-aircraft gun system.

The Germans anti-aircraft targeting acquisition radar, or as they called them, Funkmeßgerät (FuMG), were not in service when the war started. The Germans had a code that identified their

radars that was quite simple. After the word radar, or FuMG, there would be a date consisting of the last two digits of the year, for example 39 for 1939. A letter identifying the company that built the radar, would follow this. (G=GEMA, T=Telefunken, S=Siemens, A=AEG and L=Lorenz). To confuse things, the Luftwaffe came up with its own system, using the numbers 62-99, followed by letters A, B, C, and D to replace the year designator.

A number of different FuMG were designed and built, but the one we are interested in here was called the Würzburg. This had the official title of FuMG (FLAK) 39 TA, -C, -D Würzburg. As can be told from the letter T, this one was developed and built by Telefunken. Development began in 1937. This was to be a short-range tactical target acquisition radar system. It consisted of a single parabolic dish with a diameter of three meters. The dish could rotate 360° and be tilted 0° to 90°. The range was up to 40 km with an azimuth accuracy of +0.45° and vertical of +7-9.5 meters. Another unusual feature of the FuMG radars for their time was "Identification Friend or Foe" (IFF). There are two dipole antennae that can be mounted on either side



1-2. The base is a simple anti-aircraft gun mount similar to the 88mm gun. The kit instructions show it both in the towed, i.e. side arms folded, and open position. 3. The platform is made up of seven separate pieces. The bad news is that all the gaps between the boards have to be cleaned out, but it is only

a thin layer of resin. 4-5. The top and bottom of the completed platform. The small support arms are very delicate and should only be added at the last stage. There are also a number of locking pins that are scattered about the platform. 6. The base has options for leaving the doors open or closed. I want-

of the main feed horn for this purpose. The aircraft, of course, had to have the emitter. In the German Luftwaffe this was the Fug 25 Zwillings. I did notice in all the photographs of the Würzburg these extra dipole antennas were not mounted. This might have something to do with the German Luftwaffe's poor state in the later years of the war. The FuMG 39 T.D Würzburg was later renamed the FuMG 62D by the Luftwaffe and began to be delivered to AAA units in 1942. Total production ran to approximately 4,000 by the war's end. For travel, the radar was folded up and moved on a two-axle Sonderanhänger 104 trailer, which is similar to the Sonderanhänger 201 and 202 trailers used for the 88mm gun.

I did not find out exactly how these radars were assigned, but one Würzburg was assigned to each battery of 88's when available. There were at least four different versions of the D model, numbered D1 through D4. The early Würzburg D2 and D3 had wooden duckboard platforms around the radars, but the last version, the D4, which is the subject of this article, used metal duckboard instead. The crew of a standard Würzburg was six personnel with the designations of B1-B6 and like the gun crew of an 88, each had an assigned job. All the personnel, like the 88's, were Luftwaffe personnel. One can only wonder how operating a large radar at such close quarters affected the crews in later

years. I would guess they probably did not father a lot of kids!

Another French kit?

There are actually two DES kits of the Würzburg, one in travel mode and the other in operation mode. This operational kit is 100% resin in a light cream color with 134 parts. Like all DES kits, the casting is great with no air holes or incomplete pours. There are virtually no pour plugs to deal with either. The 10 pages of instructions are dual language, in French and English. They include a detailed history, two pages of photos of the parts, plus close-ups of the different components.

Easy construction

First, I want to say that I followed the instructions and had no problems. The kit looks very complicated when you start, but thanks to great illustrations and instructions, you really cannot go wrong. I built mine in two days. The first step is to build the Sonderanhänger 104 trailer. Unfortunately, the kit does not include the bogies, which would have been a nice touch. You only get them with the Würzburg kit in travel mode. I thought of trying to use the Tamiya 88mm Flak 36 bogies, but they are dual tires and the Sonderanhänger 104 trailer uses only single tires. The only odd thing about the first step is that they show and tell you to put the side arms in the travel position. Obviously, don't do that. Yeah, I fell for it until I

realized I was not building it in the travel mode.

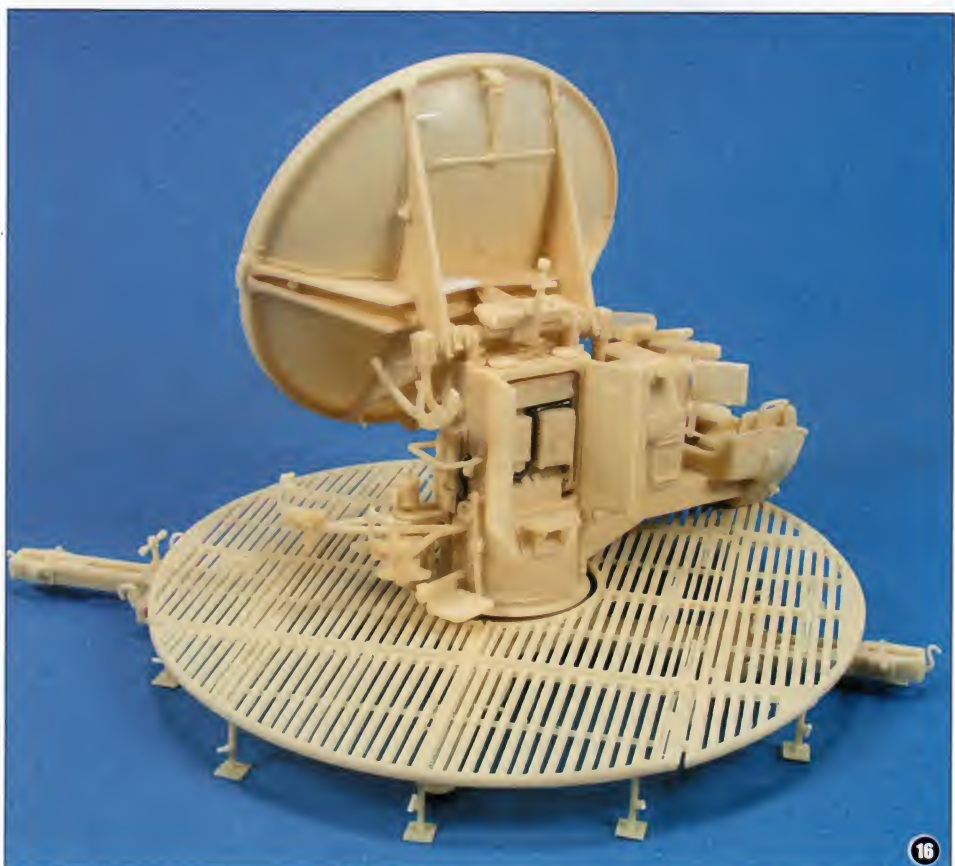
The next step is to assemble the firing platform. The first thing you have to do is clean out all the resin left between the slats. This took quite a while, but was not too bad, just time consuming. My kit was missing one part and it was one of the braces, 106. Fortunately, it was easy to build one from scratch. I substituted thin styrene rod for the brass wire suggested for the stands. The stands do not have location points and just butt up against the bottom of the platform. They are very delicate, so you have to be extra careful after they are on.

The next step turns to the main base and you need to supply some wiring. I used thick Hudson & Allen solder wire. You could leave the panels closed, but there was no way I was going to hide all that neat detail. The seats on the left were rather difficult to figure out, but I think I got them right. The instructions are a little strange in that they have you add pieces a couple of steps after you think they should, but they always cover them. The next step was adding some smaller pieces, like the hoods for the gauges. The gondola type seat on the right was also a little difficult to figure out and again, good reference helped.

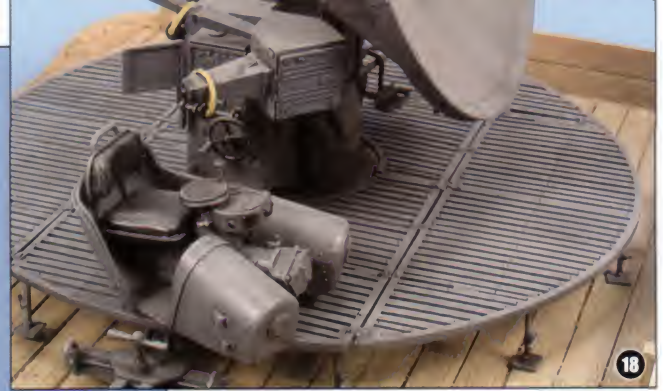
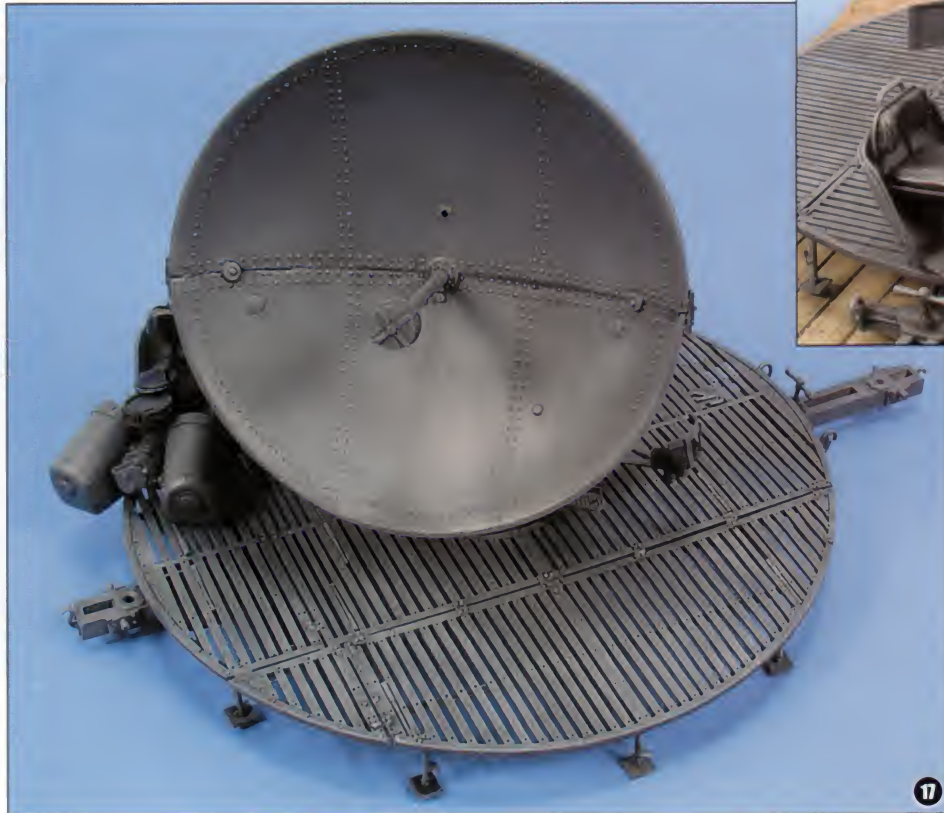
The last step was to assemble the radar dish. Mine was broken in several places and had a big chunk missing, which I replaced with sheet styrene. There are two auxiliary antennas mounted on the



ed to show all the internal boxes and connections, so I chose to leave them open. I added thick solder wire in the main panel to simulate wiring. 7. The two seats on this side were particularly difficult to figure out from the instructions, but I think I got them right. 8. The front side was a little plainer but I had not put on the last box yet. 9-10. The gondola type seat was a little difficult to figure out. 11. The casting was not as great on the main dish and I had to make a number of repairs. The two large plugs on either side of the main feed are for IFF dipole antennae. You do have the option of putting them here. 12. Oddly enough, the instructions do not tell you to glue the dish on. I guess they figure anyone would know that, as they should! 13. The two dipole antennae in questions can be seen at the top and bottom on the rear of the main dish. Actually, you will have to take my word for the other one being on the bottom. 14. The gondola seat was not easy to get on, but after some trimming it sat fairly well. 15-16. The dish and base temporarily mounted on the platform. Since it is heavier on the side with the gondola, it will have to be glued after painting.



rear of the dish and I was not sure at first what they were, so I just followed the instructions and glued them on. Later I figured out they were actually the two IFF dipole antennae. If you want to show these mounted, they go on the front in the two large holes on either side of the disk mounted vertically. If you choose to mount them on the front, then you do not want to glue the two plugs, 407, in. There is a note pointing this out at the bottom, which at first I did not understand. Also, it says if you choose to have the two auxiliary antennae mounted on the dish, then you should make straps on the back where they are stored. Here is another odd thing. They refer to the two parts, 406, which are supposed to be the antennae in their stowed position, but not only were they not in the kit, they are not included in the parts illustrations. The large gondola type seat that goes on the right was then glued on, although I had cheated and glued mine earlier. The last step, although not mentioned, but seems pretty obvious, is to glue the dish onto the base. There are four headsets included in the kit for the personnel, which I thought was another nice touch.



17-18. The radar was painted in dark gray and then washed and dry brushed with oils. 19-21. I cheated on the decals. Since none came with the kit, I used some from a Fingerprint U.S. internal markings decal sheet.

Painting's easy, too

You do get at least two choices of colors for this guy. I have reference photos of it in either dark gray, or dark yellow. I did not see any camouflaged ones. I had one photo of a Würzburg deployed with an 88 battery on the Atlantic Wall that I decided to copy and it was painted in dark gray. I sprayed the radar with Tamiya XF-24 dark gray. I then went through and painted small items and the seats with gloss black. I added decals from several sets, which included dial

faces and warning plates. After a coat of Solvaset, I sprayed both the radar and platform with Polly Scale satin. I then gave it a wash of black oil. I then lightly dry brushed, using white and black oils.

Making the radar operational

I thought the radar sitting by itself just did not look right, so I decided to put it into a scenic setting. Des also makes some very interesting solid resin revetment for their various guns and mounts. This are very cool, all resin items and I selected an appropriately "radar" sized one. The natural resin color leads itself to painting, as I just gave it several washes of earth tone oils. When it was dry, it was dry brushed with various shades of light tan and then flat coated.

Results

The DES kit was pretty well done and I think I enjoyed building it all the more because it is a little different. If you wanted to build a large diorama, this would look great teamed with an 88mm gun emplacement, or even a smaller anti-aircraft machine gun, which was often used for local defense. I am not sure why anyone would want to build the radar in the travel mode when the operational one looks so cool when built. ~~☒~~

—Jim Hensley

MMIR RECCE

DES Kit: Radar FuMG (Flak) 39D Würzburg (1941/1945). Kit number 35085. Suggested retail price \$75.00. Kit graciously provided by the manufacturer.

References

Muller, Werner. *Ground Radar Systems of the Luftwaffe*. Schiffer Military History, Schiffer Military/Aviation History, Atglen, PA USA 1998. ISBN: 0-7643-0567-0. Inexpensive and easily found, I got mine from Amazon.com. This is an absolute necessity for building this kit. It contains a brief, but interesting history and a number of great photographs.



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